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PRINCIPAL CONTENTS.

Railroads in the British Provinces.....401
North Western Railroad, Virginia.....403
Population of the United States.....403
Pacific Railroad—Mr. Whitney.....404
Galena and Chicago Railroad.....405
Androscoggin Railroad.....405
Railroads in Ohio.....405
Ohio and Pennsylvania Railroad.....406
Railroads in Connecticut.....406
Railroads in Tennessee.....406
Railroad from Livermore to Farmington.....407
Steubenville and Indiana Railroad.....407
Mad River and Lake Erie Railroad.....407
Troy and Bennington Railroad.....407
Louisville and Frankfort Railroad.....407
Crawfordsville Railroad.....407
Schenectady and Troy Railroad.....407
Ware River Railroad Company.....407
Genesee Valley Railroad.....407
Stock and Money Market.....408
New Work on Railroad Curves, by J. C. Trautwine.....409
Charlotte and South Carolina Railroad.....410

American Railroad Journal.

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Saturday, June 28, 1851.

Railroads in the Provinces.

The Hon. Mr. Howe, of Nova Scotia, (who is now at Toronto, urging his Quebec and Halifax railroad upon the people of Canada,) when passing through St. John, gave, in a long speech, an elaborate *expose* of his scheme to the people of that city. His speech was a very dexterous one, and well calculated to make an impression upon an audience, while at the same time it was most specious and unsound in almost every particular. Mr. Howe is a man of impassioned temperament, who, for the want of experience in practical affairs, suffers his ideas to run to extremes that are practically false. Men of this stamp are eloquent at the expense of sound sense. A practical, and really wise man, in looking at almost every subject coming within the scope of his business, sees in it opposing arguments and probabilities, which nearly balance each other. These he carefully compares, and his convictions and action follow the weight of evidence. In the outset he will not suffer himself to become excited, for fear he may not properly estimate the conflicting testimony; and the result obtained by this process, is often so small and unimportant, if we may use the expression, as to give no occasion for excessive emotion. We therefore find sagacious men always cool and collected; never excited to a pitch of frenzy on the one hand, nor dispair on the other. The impassioned man, the enthusiast, on the contrary, sees only one side of the question, and he is impassioned and enthusiastic for this reason alone. To his mind, his view embraces the whole, while at best it includes but half the truth; and, carried to extremes, may result in a very great falsehood.

The whole of Mr. Howe's speech comes under the last category. He deals entirely in the superlative. There is no half way with him. Every thing is either black or white. There is no middle ground. He has great objects to accomplish, and the means which he proposes are exactly adapted to realise them. He is going to elevate the Provinces to the rank and dignity of a nation. The Halifax railroad is the instrument that will certainly accomplish this. The Provinces have thus far shown themselves unequal to the task of constructing works of internal improvement; therefore they never can be made competent. Their works must be built by the aid of the Home Government, or not at all. These are fair specimens of his mode of reasoning. His speech is a rhapsody, and never rises to the dignity of argument. He has sustained none of his leading points with the proper evidence. The preparation of such evidence would have prevented the delivery of his speech, and it would have demonstrated, even to Mr. Howe, the utter falacy of his positions.

The leading object of Mr. Howe is, to build up a great northern confederacy composed of the British Provinces, which shall secure to them the dignity and consideration of independent sovereignties. He says virtually that they are now the *fag end* of creation, and illustrates their humiliation in this way. When the steamer that carried Mr. Howe arrived at Liverpool, all were eager to get on shore. A certain nameless gentleman, with big pouches hanging on his arm, steps up to the official, and says "I am bearer of dispatches from the government of the United States." "Go on shore, sir," was the word. Mr. Howe, sensible of the importance of his mission, and the dignity of the government he represented, steps up to the same official, and says "Sir, I am bearer of dispatches from the government of Nova Scotia." "Don't know any such government; no orders, sir," was the reply—and Mr. Howe was tumbled back into the promiscuous herd of travellers, and forced to run the gauntlet of the officious and prying inspectors. So when he got to London, he saw Mr. Lawrence, our embassador—no better man, says Mr. Howe, than five hundred whom he can pick out in Nova Scotia—cutting a great swarth in the House of Lords, with a *cart blanche* to go where he pleased, while Mr. Howe's ticket of admission, was an introduction by the Hon. Mr. So-and-so. This degrading contrast raised Mr. Howe's dander, and he very properly and very sensibly determined to raise *his* country, to wit, Nova Scotia, to the rank of the United States, and himself to the privileges enjoyed by Mr. Lawrence; and how? By the construction of the Quebec and Halifax railroad. He fully admits and feels the humiliating condition of the Provinces; but he has discovered in this road, the grand panacea for all the ills under which they are laboring.

Let us look at this matter a little, this magic charm that is so suddenly and so completely to change the condition of the Provinces, from poverty to wealth, from insignificance to importance, from neglect to the "highest consideration."

From Halifax to Quebec, the distance by the proposed road is 650 miles. But Quebec is at the lower extreme of the Canadas. The "great west," the real or fabled source of the wealth of this continent, would not be reached without going to Montreal, 180 miles further; making the whole line of road necessary to accomplish the great objects of Mr. Howe, 830 miles. Upon this 830 miles of road is to be thrown the produce of the "west," to be taken to Halifax for exportation. It is the profits arising from its transportation, together with that arising from travel and local business, that are to make the Provinces great, rich and powerful, and enable her great men and embassadors to run the Liverpool Custon House "scott free," to visit the House of Lords "because they have a mind to;" in fine, to cut a big figure, whether upon the bench, in the Colonial, or what is still better, in the Home Parliament, and as "Ministers Plenepotentiary and Extraordinary," etc., etc.

We will suppose this road built to Montreal and ready for business. A merchant wishes to send 100 barrels of flour to Halifax. He applies to the company, who offer to forward it at the very *low* price of two cents per ton per mile, which only amounts to $16 60 per ton, or $1 66 per barrel!!! This cools his patriotism a little, supposing him to be of the same mind with Mr. Howe. He goes to a New York forwarder, and finds that he can send the same to New York for $3 per ton, or 30 cents per barrel, and from that city to Halifax for $2 per ton, or 20 cents per barrel; making a saving on each ton of $11 60 cents! A slight saving might be effected over the above estimate, by taking the flour to Quebec; but even in that case, it would cost over $12 per ton to send it to Halifax. In our illustration we put flour for every kind of merchandise. We therefore ask Mr. Howe, and every body else, whether, with these charges, either Canada or the west will send any produce to market, via Halifax, or import through the same channel, when they can use the New York route for one third the cost of the other? The argument here occupies a very small space. The distance, and cost of transportation per mile, being known, the result is a matter of mathematical calculation. It will be borne in mind at the same time, that upon the completion of the englargement of the New York canals, freight will be taken from this city to Lake Ontario at a cost not exceeding $1 75 per ton. Our canals are thrown open to Canadian as well as American produce. At the above rate, we ask again, whether produce afloat on that lake will ever take the circuitous and expensive route by land, to Halifax?

How is it with passengers? We will admit that such as land at Halifax from the steamers, and wish to go direct to Quebec, would take the proposed road. The number might average *two* per week, though we believe *one* would be much nearer the mark. Business travel always follows the route of freight, for the latter makes the former, and unless the produce of the Canadas went to Halifax we can see nothing to eall business men there. Certainly no one would take this as a route of pleasure, as it is, after leaving the St. Lawrence, entirely wanting in all attractions for the tourist, save the grandeur that arises from the vast and desolate expanse, of barren and uncultivated country.

How is it with way business? According to Mr. Howe's idea, the road must traverse the shore of the River and Gulf of St. Lawrence, to serve as a military line in case of war. For almost its entire course, it will be within a stone's throw of navigable tide water. Now it is well known that freight can be carried in sailing vessels for from one to three mills per ton per mile, against twenty mills by railroad. Is produce and merchandise going to pay tribute to railroads at ten times the cost of transportation by vessels? We think not. We can see no reason for putting a pound of freight on board the railroad, if built. Where shall it be taken? To Halifax? That is but a small town, and offers no market that its immediate vicinity cannot amply supply. If it must be exported, it would be just as cheap to ship it at the point where it was raised, and save the carriage of 200 or 300 miles by railroad. Railroads are wanted to send produce to a market. The Provinces have no domestic markets. Their produce must be sent abroad to find one. They have every facility for reaching them by water, but none by land. The Lower Provinces are the last places in the world that need railroads for the purposes of transportation. If built, they would not change even in a slight degree the present course of business. If we are correct in what we have said, away goes the grand key stone of Mr. Howe's magnificent fabric. If the Quebec road when built, would neither become the route for the produce of the Provinces nor the United States; if it would not even change the course of business on the route traversed, how is this road to become the Moses who is to lead our neighbors out of Egypt, and bondage? In deciding this question, there is no room for fancy or imagination. All is sober fact. If it cost so much money to carry a ton one mile on a railroad, we have only to multiply this sum by the number of miles to be traversed, and we have the result. We should be even willing to leave the decision of the matter to Mr. Howe himself. It is one in which no sane man, no man who understands the force of figures, could make a mistake.

Mr. Howe calculates largely upon the moral, social and political influence of his proposed road. We apprehend that the construction of the road itself will accomplish nothing in this respect. These results will depend upon the amount of its business. If it will not become the route of travel, and if it never can become an avenue for freight, then will it be a dead letter, impotent for good, and a source only of vexation and annoyance. Its results of every kind, pecuniary as well as moral, must depend entirely upon its capacity for business; and this capacity, as we said before, can be ascertained with as much accuracy as we can tell how much two and two will make. In transportation, the route that bids *lowest*, carries off the prize.—There is no other guide in these matters, but pecuniary profit. Mr. Howe cannot find a loyal Englishman in all the Provinces, who, for a mill on a ton, would not decide in favor of the American route. In business matters, Englishmen and Yankees are alike loyal to the *Prince* of Mammon, and to no other potentate. It is this universal law that renders it so important that we should be governed by prudential considerations alone in the selection of routes for railroads. The end should always control the means. If we make a wrong move, if we locate a road upon an improper line, a penalty always attaches to our improvidence, sooner or later. We are compelled to right ourselves, by undoing what we have done, and adopting the right course at the loss frequently of all that has gone before. Never was there a more fatal mistake than this same one made by Mr. Howe, of throwing aside the only safe guide, the physical and material results of a railroad, and substituting therefor, the schemes of an ardent politician. Railroads and politics were not made for each other. The former are altogether too good to be caught in such company, and are certain to come to dishonor and disgrace from such an alliance. We have tried this matter out and out in the United States, and always with the most disastrous results. So uniform has been our experience in this matter, that a large number of our States have adopted constitutional restrictions to the contraction of State debts. This restriction is imposed, upon the adoption of nearly every new constitution, both in the old States and in the new. We have found public officers to be very unsafe persons with whom to entrust the expenditure of money. We cannot point to an exception of this universal rule. The Erie canal is often referred to as an instance of successful management, but even in this case we have probably lost sight of a great amount of mismanagement, in the vast income which that work yields. The reason of this is perfectly obvious.—If practical men are not competent to spend their own means economically, how can we expect anything better from ignorant government officials, whose chief object will be, to make the most out of the work which they have in charge. Our experience is worth something, and should convey a lesson to our neighbors. Neither Nova Scotia nor New Brunswick are any more competent to undertake the construction of railroads, than were the States of Indiana or Illinois in 1835 and 1836. These states failed not for the want of means, but from sheer incompetence. As soon as the people discovered the cause, they set to work at once to correct the mischief, and took from their constituted authorities the power to contract debts for internal improvement. If the Provinces follow their example, they will certainly in time exhibit similar results. It is inevitable that this should be so. Failure will not be the result of accident, but will follow from an inherent inability on the part of a government to successfully prosecute enterprises which are purely *commercial* in their character.—Some of our states still assist in the building of railroads, but they lend money upon the security of private capital, and leave the means furnished to be expended by the companies themselves. We steadily ignore all direct connection between such aid, and the management of the works assisted. Mr. Howe attempted to prove from past experience, the utter incapacity of the Provinces to construct railroads and canals; and points to the disgraceful and disastrous result which has thus far attended all their efforts. If this proves anything, it proves too much. If the people are incapable, their government must he still more so. Certainly we think our neighbors have no great reason to feel flattered at the picture drawn by Mr. Howe. If it is a correct one, the less they have to do with railroads the better.

The Lower Provinces do not need railroads for commercial purposes. Their staples would not go on to railroads, if they had them. No portion of the United States is half so well off for facilities of carriage. Nearly every inhabitant of New Brunswick and Nova Scotia lives within a half a dozen miles of navigable tide water. The great thing that is crushing them to the earth, is the want of a market. Mr. Howe ridiculed the Portland convention, and stated that although the national flags of the two countries hung up side by side, an English *mackerel* could not have been carried to Portland without paying a heavy duty. That to the delegates alone, was free admission allowed. This is all very true; and it is the want of a free access to our markets that is the great drawback upon the prosperity of our neighbors. They are rich in all the materials of wealth, but England is too far off for a market, and the duties imposed by us amounts almost to a prohibition. Mr. Howe says we will not grant free trade. This is a great mistake. Brother Jonathan has thought the matter all over, and would gladly enter into an arrangement based upon the broadest principles of free trade. We do not need the corn, the coal nor the fish of the Provinces, but we will take them, provided they will take in turn, our cloths, our iron wares, our shoes and our nails. The Provinces cannot give us free trade. What would be the effect of such an arrangement? If our products were taken without

duties, they would be compelled to make up the loss by imposing an additional duty upon English merchandise, to keep up their revenues. The result would be that we should soon drive out the English manufacturer, and have the whole market to ourselves. This would be inevitable. A virtual annexation would soon take place, which in a short time would receive a legal sanction. If we go in for reciprocal free trade, we on our part wish to go the whole figure, and extend to every article of commerce. We wish to be consistent. Our people would be unanimous for such an arrangement; but we have no idea of making an arrangement which shall embrace only the articles of wheat and coal. We have more of these now than we can find a market for. We all want free trade with the Provinces, but we do not intend to be outwitted by them. They cannot grant free trade.—England would not suffer it. We should drive her out of one of her best markets in a very short time. Still, as we said before, the Provinces never will rest until this great boon is secured to them. They are now, if we may use the expression, without a country. They are excluded both from the home, and from foreign markets. We cannot expect a people to remain contented under such a state of things, especially Englishmen. It is the feeling of the necessity of doing something, that has driven them into the Halifax and Quebec railroad scheme—which, instead of relieving, would involve them still deeper in pecuniary distress.

Railroads perform two offices: they are the instruments of commerce, and of social enjoyment. Such is their value in the latter sense, that with us no portion of the country is considered worth living in without them. If our people cannot bring them to their doors, they will go where they are. A person who lives upon a line of railroad, no matter where, feels himself in the world. He is not isolated from all the rest of mankind. A railroad would tend to fill up the Provinces with people, because they would render living there tolerable. Commerce would flourish in proportion to the increase of population. Railroads, therefore, should take the line of convenience and travel. They can at present have no other use than the one we have stated. If it is believed that a railroad from Quebec would become a great channel for transportation and travel, it is because their capacity for business is misunderstood; or if it is believed that they alone would effect a regeneration of the Provinces, it is because their true condition and wants are not appreciated. Railroads may be useful as aids, but something far beyond them is wanting to secure to the Provinces that prosperity to which they are certainly entitled.

Virginia.

Parkersburg Railroad.—The Parkersburg Gazette of the 14th inst., says:—

"On the 20th inst. books of subscription to the capital stock of the Northwestern Virginia railroad company, will be opened at Clarksburg, Pruntytown, West Union, Harrisville, Elizabeth, Glenville, Buckhannon and Phillippi; and on the 25th inst. at Weston, July 2d, being the day fixed for opening the books at that place. These points are well distributed through the region of country interested, so that every citizen may repair to one or other of them, on the day designated, with little trouble or difficulty. With regard to the prospect and probable amount of subscription, out of this county, we are not so fully advised as we could wish.—From some quarters we have learned nothing. From others we are informed that large and liberal subscriptions will be made, men of means taking a lively interest in the enterprise."

Population of the United States.--Seventh Census.

STATES.	White population.	Free colored population.	Total free.	Slaves.	Federal Rep. population.	No. of Representatives.	Fractions.
Alabama	426,515	2,250	428,765	342,894	634,501	7	*72,289
Arkansas	126,071	587	162,658	46,982	190,848	2	*3,444
California	200,000	.....	200,000	.....	200,000	2	12,566
Connecticut	363,189	7,415	370,604	.....	370,604	4	*89,498
Delaware	71,282	17,957	89,239	2,289	906,612	1	
Florida	47,120	926	48,046	39,341	71,650	1	
Georgia	513,083	2,586	515,669	362,966	733,448	8	*77,534
Indiana	983,634	5,100	988,734	.....	988,734	11	*51,714
Illinois	853,059	5,239	858,298	.....	858,298	9	20,980
Iowa	191,830	292	192,122	.....	192,122	2	4,718
Kentucky	770,061	9,667	779,728	221,768	912,788	10	*75,470
Louisiana	254,271	15,685	269,956	230,807	408,440	4	33,632
Maine	581,920	1,312	583,232	.....	583,232	6	21,020
Massachusetts	985,498	8,773	994,271	.....	994,271	11	*57,251
Maryland	418,763	73,943	492,706	89,800	546,586	6	*78,076
Mississippi	291,536	898	292,434	300,419	472,685	5	4,175
Michigan	393,156	2,547	395,703	.....	392,703	4	20,895
Missouri	592,176	2,667	594,843	89,289	648,416	7	*86,204
New Hampshire	317,354	477	317,831	.....	317,831	3	36,725
New York	3,042,574	47,448	3,090,022	.....	3,090,022	33	*91,558
New Jersey	466,283	22,269	488,552	119	488,623	5	20,113
North Carolina†	552,477	27,271	580,458	288,412	753,505	8	3,889
Ohio	1,951,101	25,930	1,977,031	.....	1,977,031	21	9,289
Pennsylvania	2,258,480	53,201	2,311,681	.....	2,311,681	25	*62,833
Rhode Island	144,012	3,543	147,555	.....	147,555	2	*53,853
South Carolina	274,775	8,769	283,544	384,925	514,499	5	45,989
Tennessee	767,319	6,280	773,599	249,519	923,310	10	*89,992
Texas	133,131	926	134,057	53,346	166,054	2	*72,362
Vermont	312,756	710	313,466	.....	313,466	3	32,360
Virginia	894,149	53,906	948,055	473,026	1,231,870	13	13,744
Wisconsin	303,600	626	304,226	.....	304,226	3	23,120
	19,517,885	409,200	19,927,085	3,175,902	21,832,621	233	
TERRITORIES.							
Dt. of Columbia	38,027	9,973	48,000	3,687			
Minesota	6,192	.....	6,192				
New Mexico	61,632	.....	61,631				
Oregon	20,000	.....	20,000				
Utah	25,000	.....	25,000				
	19,668,736	419,173	20,087,909	3,179,589			

† Including 710 Indians.

RECAPITULATION.

	Total free population.	Slaves.	Representative population.
Free States	13,533,328	119	13,533,299
Slave States	6,393,758	3,175,783	8,299,226
District and Territories	160,824	3,687	.....
	20,087,909	3,179,589	21,832,625

Total free population	20,087,909
Slaves	3,179,589
	23,267,498
Ratio of representation	93,702

* [The aggregate *Representative* population gives, as the nearest approximate ratio for 233 members, (the number fixed by law,) a ratio of 93,702; but this ratio gives only 220 members—leaving the remaining 13 to be assigned to the States having the largest residuary fractions. The States which thus gain a member are designated in the above table by a *.]

The Locomotive.

A locomotive is the true type of the civilization and character of our age. We dig canals, make railroads, build steam and clipper ships, cover the land with a net work of telegraph wire, invent all sorts of labor-saving machines, analyze with searching alchemy soils, rocks and plants, to wrest from nature her most hidden mysteries, and task science and manual art to the utmost to facilitate in all possible ways our material progress. We act wisely in so doing, for by no other means can we so effectually and immediately promote the moral and intellectual improvement of our race. Look at the results of this material progress—the vigor, life and executive energy that follow in its train, rapidly succeeded by wealth, the refinement and intellectual culture of a high civilization. All this is typified, in a degree, by a locomotive. The combination in its construction of nice art and the scientific application of a power that our fathers knew not of, its speed surpassing that of the proudest courser in his untamed fleetness, and its immense strength, all are characteristic of our age and its tendencies. There was no need of a locomotive in former times. It would not have been in harmony with their modes of doing business or their habits of thought. To us, like the telegraph, it is essential, it constitutes a part of our nature, is a condition of our being what we are. Its invention was a necessity, and improvements will continue to be made upon it, perfect as it now seems, in accordance with the requirements of the public. It was fitting that a machine that has done so much to change the aspect and subserve the wants of the civilized world, should have a prominent place assigned it in the great world's exhibition at London. It is but a few years since—less than twenty-five—a large reward was offered for the construction of a locomotive that would draw less than twenty tons over a level road at the rate of twelve miles an hour. This achievement, poor as it may seem to those accustomed to see heavy trains, loaded with hundreds of passengers, sweep by at the rate of 30 miles an hour, was a great thing in its day, and

twenty-five years hence our boasted performances may seem equally timid, weak and slow. The Boston *Daily Advertiser*, noticing the locomotive on exhibition at the World's Fair, says :—

Among them is one called Lord of the Isles.—It is described as identical in its construction with an engine called the Great Britain, which is working on the Great Western Railway, and which when put upon the road attracted much attention by the remarkable performance of running at the rate of 70 miles an hour for 40 consecutive miles, carrying a load of 110 tons, exclusive of engine and tender. There are other engines of the same class on the Great Western road between London and Swindon. One of them is stated to have lately conveyed an excursion train, containing 1500 passengers, from London to Bristol, a distance of 118¼ miles, in three hours. Engines of the same description are to be put on the line between Birmingham by which it is anticipated that the passage of this route between Birmingham and London will be made in two hours and twenty minutes, although the distance is much greater than by the London and North Western route—probably not less than 130 miles. The Great Western company is constructing coal wagons, weighing under 4 tons, to convey 10 tons of coal each, with which it is anticipated this large class of engines will draw 300 tons net over the various gradients of their line of road.

English Institution of Civil Engineers.

The paper read was "A Description of a Turntable, 42 feet in diameter, in use on the Bristol and Exeter railway," by Mr. I. J. Macdonnell, M. Inst. C. E.

It was stated that this table worked on a ball-pivot, and consisted of two central cast-iron arms or brackets, which carried at their extremities hollow wrought iron traverse girders for supporting the longitudinal timber beams, forming a framing on which were placed the rails—the outer ends being supported by other girders attached to the traversing wheels, which were three feet in diameter. It afforded a perfect and equal bearing throughout its entire length, not being depressed more than half an inch when the leading wheels of the engine struck the table, and an engine and tender, together weigning 40 tons, were turned by the driver and stoker in three minutes. Tables on this principle have been erected both at Bristol and Exeter, and the cost, with the foundation, did not exceed £400 each.

After the meeting, Mr. Penrose exhibited the spiral instruments recently invented and registered by him, called Penrose's "Screw Helicograph, or Logarithmic Spiral Compass," and Penrose and Bennett's "Sliding Helicograph."

In the latter instrument, with which volutes and other forms of the logarithmic spiral were drawn, a frame sliding upon a smooth bar was supported by a wheel, the axis of which being set at any given angle to the bar, produced by its obliquity the converging motion in a spiral arc.

The "screw helicograph," used for drawing a more limited series of these curves, received its spiral action from a nut fixed in the centre of a revolving disc, which communicated motion to a screw; carbonic paper being used for obtaining an impression of the path of the disc.

The paper read was "A Description of the mode of working an Inclined Plane, of 1 in 27½, on the Oldham Branch of the Lancashire and Yorkshire railway," by Captain J. M. Laws, R. N., Assoc. Inst. C. E.

The mode of working this incline was by a combination of locomotive power and gravity. It was at first proposed to be worked by a horizontal wheel, rope, and pulleys, with a locomotive engine and train at each end of the rope, so that one train might descend while another ascended the incline, but as this method appeared to be liable to many contingencies, by which the regular traffic would have been deranged, and the expense of locomotive power increased, a balance-weight was substituted for the descending locomotive, one line of rails being appropriated to it, and the other retained for the goods and passenger traffic. The balance-weight consisted of a heavy break van, and a number of ballast waggons filled with sand; but in place of the latter, loaded coal waggons were frequently used, as there was a coal-pit at the top of the incline, and this was found to be a most economical and advantageous way of working the coal traffic. When the bill was in parliament, it was stated in evidence, that there would be great danger in descending so steep an inclination; but the experience of seven years—during which period the rope had broken several times, and the break van had once been allowed to run down by itself, without doing any serious injury—had proved this opinion to be erroneous. The ordinary passenger trains ascended and descended the line at from 20 miles to 25 miles per hour, the mode being to stop at the end of the incline to attach the rope, then back the engine so as to draw the balance train off the scotch at the top, when the steam was put on, and the train ascended. This mode of working had been attended with the most perfect success, and it was thought that if more attention was paid in the construction of railways, to what could be accomplished by gravity and impetus, in combination with locomotive power, a great saving in the original cost of the line would be the result.

The wire ropes which had been used were manufactured by Messrs. R. S. Newall & Co., each rope was rather more than one mile and a quarter in length, 3½ inches in circumference, weighing 126 cwt. and costing £316. Their average duration was about two years and four months.

The Civil Engineer, England's Master-Spirit.

Let us commence at home, and see what appearance this island of ours puts on at the peaceful *reunion* of nations. Is it Britannia, with her trident and plumed helmet, and the lion recumbent at her feet, or John Bull's portly form, carrying weight in every limb, and determination, not mingled with prejudice, from the crown of his broad-brimmed hat to the soles of his top-boots? Far otherwise. Some traces of those popular types of our nationality may indeed be traced, but England has greatly changed. Her genius is mechanism, her master spirit the civil engineer, her tendencies—to relieve labor from its drudgery, and delegate to iron, to steam, and to the other powers of the inanimate world, as much as possible of the burden of toil. If you doubt this, go and look at the great department of machinery in the crystal palace; watch that vast collection of interesting objects, every portion of which lightens immeasurably the burden of life, and releases hundreds of hands from the most irksome forms of industry. You will there see how mechanism is extending her dominion over the whole empire of labor; how she rises in textile fabrics to the manufacture of the most delicate and intricate lace; how from wood she aspires to fashion iron into the most exact proportions; how, with steam as her handmaid, she works the printing press and navigates the ocean, and outruns the swiftest animal in her course. Turn into the agricultural implement department, and you will find everything now done by machinery. By it the farmer not only sows and reaps, but he manures and hoes. By it he thrashes out and grinds his corn, and prepares the food for his cattle. He can even drain by machinery, and it is difficult now to find a branch of his business into which it does not largely enter. In our manufactures, the mechanical genius of the country reigns supreme. Those beautiful fabrics are nearly all the evidences of its power. Soft goods and hardware are equally indebted to it, and in its presence the unaided efforts of handicraftsmen appear small and insignificant indeed. It travels everywhere, and invades every compartment, even that of the fine arts, in the court dedicated to which some of the most conspicuous contributions as specimens of printing in oil, and attempts to reproduce, by mechanical means, the sentiment and inspiration of the painter.—*Times.*

Statistics of Coal Gas used in England.

The manufacture and consumption of coal gas alone is a wonder, in a commercial point of view. In England, 6,000,000 tons of coal are annually employed for its manufacture; and from £12,000,000 to £15,000 000 expended in its production. In London alone 500,000 tons are consumed, producing 4,500,000 cubic feet of gas, and 500,000 chaldrons of Coke—125,000 chaldrons of which are consumed in heating the retorts, and the remainder sold as fuel. The length of mains in London is 1600 miles, and the capital employed £4,000,000.—*London Mining Journal.*

Whitney's Atlantic and Pacific Railroad.

Mr. Whitney's recent letter to the London Times has caused offers to be made to him to supply whatever capital he may desire for the commencement of such a road as that which he proposes, either through the United States or Canada. He represents that there is a feasible route through a very large extent of good agricultural country, suitable for grain crops and pasture, by which starting from Quebec, the Pacific might be reached at Fuca straits, opposite Vancouver's Island. All the parties interested in Canada are therefore looking to the possibility of promoting such a scheme, In case that, owing to the rapid filling up of the Government lands in the United States, the course *first* suggested by Mr. Whitney should become impracticable. The English people would rejoice to see the enterprise carried out either through the American or British territory, and the desire of all who have emerged from the wretched delusions of national selfishness, would be that it should go by the best and shortest way. If this, however, is prevented by difficulties on your side, I entertain little doubt that the plan will be tried with regard to Canada, and will receive sufficient encouragement.

The individuals by whom the offers in question are understood to have beeen made are practically acquainted with railway matters—to which indeed they owe the possession of large fortunes—and it is said that in consideration of a share in the ultimate results of the enterprise, they propose not only to supply the money necessary for the first ten miles, until the lands could be sold for reimbursement, but also to pay a bonus. This proposal applied equally to the scheme as regards the United States, or to any efforts for carrying it through Canada. Mr. Whitney, however, has resolved, it is stated, to let it rest for the present, as its acceptance previous to the next meeting of Congress could in no way hasten the commencement of the undertaking.—*London Correspondence of the N. Y. Commercial Advertiser.*

If Mr. Whitney represents that there is a good route for a railroad to be found, by starting from Quebec and running to Fuca straits, he asserts what he knows to be untrue. Every body knows that a direct line from Quebec to the Pacific would run through a country utterly impracticable for a railroad. A greater part of the route would be of the most steril and uninviting character. It would pass to the north of Lake Superior, through a country made up of lakes and mountains; a region of almost perpetual snow.

The idea that Mr. Whitney has received any propositions from English capitalists to aid his scheme through Canada is as preposterous, as is his plan. Englishmen cannot be induced to take hold of our best projects. They will not take one cent of stock in our best lines. They will not even subscribe to the Great Western of Canada, one of the most promising projects on this side of the water. They are not therefore going to take up Mr. Whitney's moonshine, for a road across the continent, to follow a route somewhere between Lake Superior and the Arctic ocean. Not they.

The object of Mr. Whitney's going to Europe was a mere *ruse*, to operate upon Congress at its next session, which is to be composed very largely of new members. The last Congress got completely weary with Mr. Whitney and his importunities. He and his scheme were by common consent pronounced humbugs. During the recess between the meeting of the old Congress and the new, Mr. Whitney, unable in the meantime to do anything for his project in this country, very sagaciously took himself out of the way. And as a final resort, has taken up the last trick of paltry politicians, that of attempting to act upon our prejudices by the assumption of "British interference,"

This is too flimsy a pretext to blind our eyes at the present time. Mr. Whitney ought to know by this time, that he cannot get Congress to sanction his project. It is now impracticable by his own showing. His scheme is chimerical, and his motives distrusted. His day for success has long since passed, and the sooner he discovers his true position the better.

Illinois.

Galena and Chicago Union Railroad.—The annual meeting of this company was held at Chicago on the 4th inst., and the following gentlemen were elected directors for the ensuing year: W. L. Newberry, Charles Walker, Jas. H. Collins, Wm. H. Brown, John B. Turner, Thomas Dyer, B. W. Raymond, George Smith, C. S. Hemstead, Thos. Drummond, E. S. Wadsworth, D. A. Knowlton, Thomas D. Robertson.

At a subsequent meeting of the board of directors, John B. Turner, Esq., was elected president, vice Wm. B. Ogden, resigned.

From the engineer's (J. Van Nortwick, Esq.,) report of the operations of the road the past year, we give the following abstract:

On the first division, from Chicago to Fox river, there has been expended on account of construction during the year, the sum of $32,329 98. The total expenditure for this division on construction account, up to May 1st, 1851, has been $436,028 12. The estimated expenditure during the present year on construction account, is placed at $30,000.—There has also been expended during the year

For block No. 1, Original Town, Chicago	$60,543 35
For materials for extension of track	57 01
	$60,570 36

The expenditure the present year for the construction of a drawbridge over the North Branch of the Chicago river, and for the extension of tracks through New North Water street, and the improvement of block No. 1, is estimated at $20,000.

The stock of furniture now upon the road consists of one ten ton locomotive, three fifteen ton locomotives, and the equivalent of one hundred and eighty one single cars.

BUSINESS OF THE ROAD.

The business upon the road the past year presents results of a highly gratifying character, the receipts having exceeded the estimate $12,685 78, or about eleven per cent. The income for the year closing the first day of May has been, from

Passengers	$56,472 69
Freight	68,576 67
Mails	2,636 42
	127,685 78
The expenses in the operating department for the same time have been	48,904 24
Net earnings	78,781 54

Whole number of passengers conveyed upon the road during the same time, 68,782.

Tonnage of freight westward	28,244 tons.
" " eastward	23,875 "
Total tonnage	52,119 "

The whole number of miles run by locomotives, including gravel and wood trains, was 86,118 miles, and the whole expense of operating the road has been 56·8 cents per mile run.

The receipts of the road for the months of February, March and April last, compared with the amount received in the same months in 1850, (the first three months the road was in operation to Elgin) show an increase of about 88 per cent. This increase, however, is owing in part to additional facilities afforded, inducing business, and in part to the construction of a branch road, which has gone into operation since that time.

The Aurora Branch road, connecting with this road at the junction, thirty miles from Chicago, was completed as far as Aurora, 13 miles, about the first of November. The whole business of this road has been increased about 25 per cent by the opening of this branch. Aurora and Elgin are equi-distant by railroad from Chicago. The receipts of the road for the six months ending on the first day of May (the time the branch has been in operation) show that the business to and from Aurora has nearly equalled that to and from Elgin.

The receipts upon the first division of the road the present year may be safely estimated at, from

Passengers	$65 000
Freight	80,000
Mails	3,000
	148,000
The expenses of operating the road for the same time	53,000
Leaving net receipts	$95,000

The estimated cost of the road from Elgin to Belvidere, with T rail, including furniture for that part of the road is $540,000

The same from Belvidere to Rockford.... 270,000

Cost of second division, exclusive of interest account $810,000

That part of the division lying between Elgin and Belvidere was placed under contract in September, 1850. The first six miles are to be completed by the 15th day of June; the next six miles by the 15th day of July; the next twelve miles by the 15th of August, and the residue of the line to Belvidere by the 15th day of September next.

Contracts for ties, iron and the necessary engines and passenger cars have been entered into. The expenditures on this division, up to the first of May have been $173,338.

Mr. Van Nortwick estimates the entire business of the road for the first year after it shall have been completed to Rockford at $275,000

Cost of operating same time, about 100,000

Making the net earning $175,000

The whole cost of the road by that time will probably have reached—

First division	$500,000
Second division	875,000
Chicago extension and depot, etc	100,000
	$1,475,000

This would show a net income of about 12 per cent on the cost, the first year after the road was in operation to that point.

The length of the third division, by the most direct line surveyed, is 77 miles. Two lines have been surveyed from Rockford to Freeport, and four lines from the latter place to Galena. These four lines, however, resolve themselves into two—one via Scales' Mound, and the other via Savanna.—The maximum grades by the former are from fifty to sixty feet, and by the latter about 40 feet.

Maine.

Androscoggin Railroad.—A special meeting of the stockholders of the Androscoggin railroad was recently held at Livermore Falls. The condition of the financial affairs of the company was fully and clearly presented by the directors, and the necessity of an additional subscription to the stock ably urged by several gentlemen. Various plans were suggested, but the result was the adoption of a resolution authorising the directors to issue a preferred stock to the amount of $65,000, at 5 per cent semi-annual interest, the subscription to which shall not be binding until $50,000 of a reliable subscription are obtained. This amount will be amply sufficient, together with the bonds already issued, to complete the road to Livermore Falls. It is presumed that the stockholders will take the amount forthwith, and thus secure the completion of the road, a result which cannot be obtained without such action on their part. The directors announced distinctly to the meeting their determination not to lay down a rod of the rails until the above amount of stock is provided for.

For the American Railroad Journal.

Ohio Railroads.

H. V. Poor, Esq.

Sir,—A company was a few years since chartered by the Legislature of Ohio, to make a railroad from Hillsborough, Highland county, to Belpre, in Washington county, opposite to Parkersburg.

This road was called the Cincinnati and Belpre road, and was intended to unite the cities of Cincinnati and Baltimore, by the following routes and proximate lengths:—

1. Cincinnati and Hillsborough Railroad.	60 miles.
2. Cincinnati and Belpre from Hillsborough	125 "
3. North Western Virginia by Parkersburg, and the Little Kanawha	120 "
4. Baltimore and Ohio railroad from Tygarts Valley, by Cumberland.	271 "
Total	576 "

Of these the 1st link will be in operation in October next, the 4th in June next.

The 2nd has made a small beginning at construction, upon a wrong line, and the 3rd is about opening its subscription books.

The 2nd link, the Cincinnati and Belpre, has been under consideration and survey for over 14 years; the first survey under the authority of the state of Ohio having been made in 1836.

It was expected by everybody that the Belpre road would be commemced at Hillsborough, and continued eastward, continuously outwards from Cincinnati, forming a working and profitable road, growing longer and longer, and more and more profitable, with every rail laid down, until the point of Belpre should be gained, with a working road in full operation, and there crossing the Ohio at Parkersburg, meet another working road, the Baltimore and Ohio, brought forward by that time to the same point.

This plain business course, dictated by eastern experience in railways, and expected by the common sense of the community, having been abandoned in a recent contest about details, into which the parties in interest have madly plunged, it is hard now to say what the course taken with this important line will be.

Cincinnati has acted upon the matter thus far, she voted $150,000 to the Belpre company, conditioned only to be expended *continuously eastward*, from Hillsborough; the city undertaking a leading part of the burden (furnishing the iron,) to bring up the road to that point, 60 miles.

It turned out unfortunately, though in any other country it would have been considered a happy circumstance, that the leading Valley of Point Creek pointed directly from Chillicothe towards Hillsborough, and offered a remarkably favorable line for the through road to pass those points.

Of five surveys made over this ground, each engineer had selected this leading valley, this natural route, for the railroad line, and for fourteen years after the first survey by the state, no other was thought of or named.

Within a year or two, an indirect and costly line has been brought into notice by a series of manœuvres which would do credit to any political campaign, and was ultimately adopted by the Belpre company.

Out of this singular proceeding a warm contest has arisen, in which the parties engaged have diverged wider and wider apart, until the Belpre company have entirely lost sight of the objects for which they were originally chartered, and have bolted from the track in the most eccentric manner.

The position of the railway project through southern Ohio, has now taken the following extraordinary shape:—

1.—The Hillsborough company have resolved to extend their road from Hillsborough to Chillicothe, by the natural route along Point Valley. Total distance from Cincinnati to Chillicothe, 98 miles.

2.—The Belpre company, determined to avoid Hillsborough at every hazard, (even if their whole scheme should be wrecked,) have began to work between Chillicothe and a little village called Greenfield, several miles out of the true line.

Arrived there, they hesitate what to do, and have two plans—first, to run an independent line to Cincinnati (a duplicate line,) by the winding valley of Stone Lick, long since tried with instruments and rejected; second, to run their line to Dayton, abandoning Cincinnati!

3.—The Belpre company looking eastward, and hearing Mr. Swann, the President of the Baltimore and Ohio railroad, declare that for good reason shown, Parkersburg must be the terminus of the Baltimore line, as it was always intended to be.

The Belpre company, I say, finding Parkersburg fixed as the point of junction on the Ohio, as was expected always, and which they were chartered to reach, instead of being pleased, fly off tangentially and enter into arrangements to run the road to Wheeling, by way of Marietta, and connect with Philadelphia through the Hempfield line!

There then we have a pretty piece of entanglement, unequalled out of Ohio, a road chartered to connect Cincinnati and Baltimore, suddenly shifts its western terminus to Dayton, and its eastern to Philadelphia!

So things stand now, if they stand at all, and of the further curiosities which may arise, you will be duly apprized, and you will scarcely find funnier railroad matters to

CHRONICLE.

Ohio and Pennsylvania Railroad.

The final letting of the Ohio and Pennsylvania railroad took place at Mansfield on the 12th inst. The work put under contract extends from Wooster, by Loudonville and Mansfield, to the Cleveland Columbus, and Cincinnati railroad at Crestline, near Galion, a distance of 53 miles. The whole road is now under contract from Pittsburgh to Crestline, 185 miles, and it will no doubt be completed next year. Steadily and firmly the board of directors have carried out the policy which they announced when the enterprise was undertaken, and they can now look forward to the speedy completion of the road. From the first they determined that the work should be a symmetrical whole, and not a series of discordant parts; and to the Chief Engineer was confided the duty of terminating the location, so that no local interest might vary the line from that which the surveys showed to be the best.

In their last annual report, the board expressed the expectation that the line would be opened for use from Pittsburg to Beaver and New Brighton in July, and to Alliance and Massillon in the autumn of this year. The laying of the track progresses rapidly, and everything indicates that the road will be ready at the specified time. But little more than a year has elapsed since the work was begun between Pittsburgh and Beaver, and it has been pressed forward with untiring energy in the face of many difficulties, and is now nearly completed for that distance, graded for a double track, and bridged with substantial stone arches. The road is unusually straight and level, and the track very substantial.

The work recently put under contract on the western division is generally light, and has been let on favorable terms. The bidders were numerous, and the competition great. Many of the successful bidders are old contractors on the line.

Connecticut.

"The legislature of Connecticut have granted a charter for a railroad from the line of the New Haven and New London road at Westbrook, to Norwich, a distance of twenty-six miles, through Essex on the Connecticut river to ———; they have also given a charter for a road from Daysville on the line of the Norwich and Worcester road to the state line of Rhode Island, in the town of Killingly, a distance of six and a-half miles. When these two roads are completed the distance, by way of Westbrook and Norwich, from New York to Boston will be twenty-three miles shorter than the present route via Hartford and Springfield. The distance by this route (from Westbrook to Norwich) from New York to Boston is two hundred and fourteen miles—by the Springfield route it is two hundred and thirty-seven miles. The former being but three miles longer than the formerly contemplated air line route via Middletown, and having less grades and curves; by this Norwich route the time between New York and Boston will be reduced at least one hour. The distance will be regularly performed in seven and a half hours. It is understood that the Westbrook and Norwich company will be organized immediately, and the work be speedily prosecuted. The city of Norwich will probably become interested at least $200,000, which, with private subscriptions already promised, will give ample means for the purpose. The Killingly road, six and a half miles, will also be constructed without delay."

Tennessee.

The principal railroad enterprizes in progress in this state are—

1st—The *Nashville and Chattanooga Railroad*, extending from the Tennesse river at Chattanooga, to Nashville, a distance of 151 miles, with a branch to Shellyville of 8 miles, making the whole line 159 miles. We have frequently spoken of this work which is the leading enterprize of this state. Ample means are provided for its completion, which event will take place in the year 1852. The division extending from Nashville to Murfreesborough, 30 miles is finished, and in operation, and the grading of the whole line nearly completed.

2nd—The *East Tennessee and Georgia railroad*, extending from Dalton on the Georgia state road, to Knoxville, 110 miles. Twenty-one miles of this road is now in operation, and 60 miles more will be completed during the year; means for the balance of the line partially provided. The whole road will be completed in 1852 or '53.

3rd—The East Tennessee and Virginia railroad, extending from Knoxville to the state line of Virginia, a distance of 130 miles. Most of this road is under contract, and no doubt seems to be entertained that the state of Tennessee will aid in its construction at the next session of the Legislature. This is the connecting link between the Virginia and Tennessee, and the East Tennessee and Georgia roads, and cannot be brought into profitable use until the latter are completed. It will without doubt be completed simultaneously with the Virginia road.

4th—The Memphis and Charleston railroad.—But a small portion of the line of this road is in Tennesseee, yet is regarded as a very important work for that state. It commences at Memphis, and runs by Lagrange, in Tennessee, Jacinto, in Mississippi; Decatur, Tuscumbia, and Huntsville, in Alabama, and strikes the Nashville and Chattanooga road at Crow Creek, in the latter lake, making an entire length of line of 281½ miles. Nearly the whole amount of means necessary for this road are already secured, and the work of construction will undoubtedly be immediately commenced at various points, and prosecuted vigorously to its completion.

5th—The Nashville and Alabama railroad, commencing at Nashville and running by Columbia to the Tennessee river, near Savannah, a distance of about 120 miles, for the purpose of forming a connection with the Mobile and Ohio railroad which approaches this point, and the Memphis and Charleston road. The friends of this road are now moving, and have already secured about one quarter the necessary amount of stock. The line traverses a very rich country, and the road is certain to be built without much delay.

6th—The Nashville and Mississippi railroad, extending from Nashville to the Mississippi river, at or near the dividing line between Tennessee and Kentucky, a distance of about 150 miles. We learn from good authority, that the construction of this road will be commenced as soon as a reasonable charter can be obtained. This is the last link to carry the road from Charleston and Savannah to the centre of the great Mississippi Valley, and is the natural prolongation of the Nashville and Chattanooga railroad to that river, and will doubtless receive efficient aid from the latter company.

7th—The Louisville and Nashville railroad, connecting the above cities by a line of about 180 miles. Two routes for this road in Kentucky are proposed, one by way of *Glasgow*, called the upper route, and the other by way of *Bowling Green*. Towards this project, the city of Louisville has subscribed $1,000,000, and there can be no doubt that the necessary balance would be made up by the counties along its line. It traverses a country of great fertility, and there can be no doubt of the speedy completion of this road. It will soon be the only link wanting to unite the roads of South Carolina and Georgia, with these of Ohio and Indiana.

8—The Nashville and Henderson railroad, connecting the above points by a line of about 130 miles. The construction of this road is very problematical. The chances are against it, as a road will at all events be built from Nashville to Bowling Green, the head of Slackwater Navigation on Green River, by which produce can at all times be cheaply forwarded to Evansville, the leading town of the lower Ohio.

9th—The Cleveland and Chattanooga railroad. The object of this road is to connect the East Tennessee and Georgia railroad with the Nashville and Chattanooga and the Georgia roads, by a line of about 30 miles. A company has been organized for the construction of this road, and there can be no doubt of its speedy construction.

10th—The Winchester and Huntsville railroad. We understand that a large portion of the stock, necessary to build this road has been subscribed, and that there is every probability of its construction at no very remote period. It will constitute an important link between the Nashville and Chattanooga and the Memphis and Charleston railroad. Its length will be about 60 miles.

11th—The Mobile and Ohio railroad. This road passes entirely through the western part of the state in a northerly and southerly direction. Its length of line in Tennessee is about 119¼ miles. Only the southern portion of this road, lying in Alabama and Mississippi is under construction, but there can be no doubt of the rapid progress of the work north. The people of that portion of Tennessee through which it will run are amply able to build their part of the line, and we presume they will do so, as soon as the progress of the work northward reaches them.

The above list gives the following aggregate of the number and length of lines of roads which are

entirely, or in part, within the state of Tennessee, viz. :—

Nashville and Chattanooga.....	159	miles.
East Tennessee and Georgia.....	110	"
East Tennessee and Virginia.....	130	"
Memphis and Charleston.....	281½	"
Nashville and Alabama.....	120	"
Nashville and Mississippi.....	150	"
Louisville and Nashville.....	180	"
Nashville and Henderson.....	130	"
Cleveland and Chattanooga.....	30	"
Winchester and Huntsville.....	60	"
Mobile and Ohio in Tennessee....	119½	"
	1,470	"

From the above total should be deducted about 500 miles, for the portions of the above lines lying in neighboring states. This will leave about 1000 miles of road in Tennessee, which are either at the present time, or will soon be in progress, a pretty large extent for a state that has just commenced these enterprizes. Other roads will undoubtedly soon be projected, till they shall be found at convenient distances over the whole state.

Railroad from Livermore Falls to Farmington.

A meeting of the citizens of Farmington was held a few days since, to hear the report of Messrs. Cushman and Currier, who had been employed to make a survey for the route of a railroad from Farmington to some point on the Androscoggin road. These gentlemen have surveyed a route commencing near Livermore Falls, on the Androscoggin road, via Chesterville, to Farmington Centre, a distance of 16 miles. They propose to construct a railroad upon this route, and furnish all the necessary facilities for running cars and engines over it, for $200,000. Whether the citizens of Farmington will raise this amount, is a matter of uncertainty.

Ohio.

Steubenville and Pittsburgh Railroad.—The Pittsburgh Journal of the 14th states that the Hon. Daniel Kilgore, President of the board of directors of the Stubenville and Indiana railroad, was in that city on his way to New York, on business connected with the road, and the Journal speaks in high praise of Mr. K's. thorough information on the work in which he is engaged. Of the construction of the Steubenville and Pittsburgh railroad, for which a charter is stated to be in existence, the Journal says:—

"This link to connect Pittsburgh and the Pennsylvania railroad with the Stubenville and Indiana railroad, is but forty miles in length, and can be made, it has been estimated, at a cost of eight or nine hundred thousand dollars. Once made it is undoubtedly true, as a single glance at the map will show, this link completes a chain of roads which must successfully compete with the Central Ohio railroad, and command the trade of Southern Ohio, which may find its way to the Baltimore and Ohio road, and will certainly if not intercepted by this work.

"Our own Ohio and Pennsylvania railroad is secure past all contingencies, else we should not speak of another work in any wise to divert attention from that, and its vast importance and value to the interests of Pittsburgh and Pennsylvania generally. But were that otherwise, this work cannot be in any point of view a rival one, or cannot in any degree, as it now appears to us, conflict with the interests of the Ohio and Pennsylvania railroad."

Mad River and Lake Erie Railroad.—The stockholders of the Mad River and Lake Erie railroad company, held their annual meeting in this city yesterday, and the following persons were elected directors:—

Ebenezer Lane, Wm. Hunt, Samuel Keener, Peter Odlin, E. F. Osborne, Samuel Henshaw, D. A. Neal, Henry Timmons, M. P. Sawyer, D. S. Miller.

The Directors appointed by the Governor on behalf of the state are, R. E. Runkle, E. Smith, and John Ewing.

The annual report will be published in a few days. It shows the receipts of the year just ended to be $442,926, which exceeds the receipts of the previous year by $81,761. The receipts of 1851, up to the last monthly returns on the 1st of June, show an excess of $6,946 15 over the corresponding month of last year.—*Sandusky Register.*

Troy and Bennington Railroad.

This road, which is a branch or feeder to the Western Vermont road and connecting it with the Troy and Boston road, is to be put immediately under construction. A meeting of the directors was held at North Hoosac, on Friday the 6th inst., at which Reuben Clark, Esq., was chosen President, and Palmer S. Shreves, Vice-President, Geo. M. Selden, Secretary and Treasurer. The following are the directors:—Reuben Clark, P. S. Sherever, David S. McNamara, O. R. Burnham, Samuel G. Doughty, John N. Willard, Henry Tator, William Orr, George M. Seldon, Russell Sage, Daniel Robinson, A. B. Olin and Elias Johnson.

The *Troy Whig* in speaking of this road, says:—This road, although a short one of five miles, is a very important road to our city, as well as to the valley of Western Vermont. It is the connecting link between the Western Vermont railroad and the Troy and Boston railroad—securing to Western Vermont an easy and expeditious outlet to market for her rich minerals, marble and manufactures, and secures to our city the trade from the best sections of Vermont, and by the connection at Rouse's Point, the trade on the Ogdensburg road. When this short road of five miles is completed, which we are informed is to be pushed through this season, our city will be connected by railroad with the northern towns of this county, with Bennington, Manchester, Rutland, Brandon, Middlebury, Burlington and Swanton, in Vermont, and with Ogdensburg and Montreal railroad at Rouse's Point, and all the intermediate towns in the beautiful valley of Otter Creek, and on the east shore of Lake Champlain.

Kentucky.

Louisville and Frankfort Railroad.—We are glad to learn that the Louisville and Frankfort railroad is already doing a business far exceding the expectations of the directors. The passenger trains are crowded both ways every day, and the receipts for passengers and freight, since the cars have been running all the way to the Kentucky river, have ranged from $300 to $400 daily, and in some instances even exceeding the latter sum. Since the 1st instant the receipts for passengers alone have amounted to $2,495 40.

The wire bridge at Frankfort is so far completed that passengers on yesterday's cars crossed it on foot. This saves time and trouble, as heretofore they had to be ferried across the river. The bridge will be entirely completed and ready for the passage of the cars in some two or three weeks.—*Louisville Courier.*

Indiana.

Crawfordsville Railroad.—The *Lafayette* (Ind.) *Journal* says:—"Within a few days one thousand tons of the iron for the Lafayette and Crawfordsville railroad has arrived, and the company will commence laying track next week. It is a beautiful T rail of 50 lbs. per yard, American manufacture. On the 7th of May the entire purchases were completed in Wales of the rail for the Lafayette and Indianapolis road. It is a T rail of 55 lbs. per yard. The company expect to be in reception of cargoes at Lafayette, in August, and to have thirty miles of track laid this fall. The Michigan Central railroad, under the auspices of the New Albany and Salem company, are just completing a survey from Michigan city to Lafayette. Their corps of engineers having commenced at Michigan city have reached this neighborhood. The Michigan Southern railroad company (which is consolidated with the Northern Indiana company) have determined to make an early survey from South Bend to Lafayette."

Illinois.

Chicago and Galena Railroad.—Mr. Ogden, in consequence of the great amount of business thrown upon him by the lamented death of his brother-in-law, Mr. Jones, will retire from the board; and we have no doubt but John B. Turner Esq., will be the next president of the board, as the unanimous choice of all the stockholders. He has ever been the working man of the company.—*Chicago Democrat.*

New York.

Schenectady and Troy Railroad.—The annual meeting of the directors of the Schenectady and Troy railroad, held on Monday, June 9, 1851, organized as follows:—

Directors.—Messrs. Elias Plum, John N. Willars, Henry Ingraham, John S. Ide, John Paine, Hiram Smith, Thomas Symonds, Harvey Mosher, L. McChesney, M. I. Townsend, Russell Sage, Harvey Davis, and L. H. Tupper.

The following officers were unanimously re-elected:—

President, Elias Plum; Vice President, Russell Sage, Secretary, Hiram Smith.

Hartford Railroad Company.—At a meeting of the Hartford, Providence and Fishkill railroad company, held on the 7th, a vote was passed authorizing the directors to negotiate with the Providence and Plainfield company, for a union of the two companies. Both directors, therefore, are fully empowered to make the necessary arrangements for a union, which will be so greatly for the interest of each.

Massachusetts.

Ware River Railroad Company.—This company has been organized at Barre, on the 18th instant, by the choice of the following gentlemen as directors, viz. :—Thomas W. Williams, New London; Jacob B. Merrick, Palmer; Geo. H. Gilbert, William Hyde, Ware; William Mixter, Hardwick; James B. Bardwell, New Braintree; John Smith, Seth Caldwell, Barre; Geo. Williams, Hubbardston; Artemas Lee, Templeton; Milton J. Morse, Winchendon.

The directors afterwards organized by the choice of Artemas Lee, President, William Mixter, Clerk, and William Hyde, Treasurer.

The route is to be surveyed immediately, preparatory to putting it under contract.

New York.

Gennessee Valley Railroad.—By a survey of this road just completed, the route leaves Rochester on the west side of the river, and crossing it at the rapids near the Feeder Dam—thence up the Genesee to Geneseo, crossing over to mount Morris, thence up the Kishaqua to Portage, in Allegany county—a distance of 49 miles. The maximum grade to Mount Morris would give an ascent of 29 feet per mile. The cost of construction, exclusive of depot accommodations, for 32½ miles will not exceed $15,000 per mile, or an aggregate $487,500. The balance, or 16½ miles, $20,000, or a total of $333,000. Whole cost from Rochester to Portage, $817,500. For the sake of safety the cost is assumed to be $1000,000. The distance from Rochester to New York by several routes, are put down as follows:

By way of Canandaigua and Jefferson railroad and E. Road at Ramapo....	370	miles.
Genesee Valley, via Avon & Conhocton	371	"
" " Dansville.....	388	"
" " Junct. with Buffalo N. Y., at Ramapo	405	"

The share of the city was the cost of building the road to Avon, amounting to $295,000. If Rochester does this, the people south of Avon will supply the balance of the funds for completing the road.

Knox & Shain,
MANUFACTURERS OF
LEVELS, TRANSITS AND SURVEYING COMPASSES.
No 72 Dock st. first door south of Walnut, west side,
PHILADELPHIA.

THE Fourth Annual Exhibition of AMERICAN MANUFACTURES, by the MARYLAND INSTITUTE *for the Promotion of the Mechanic Arts*, will be opened in Baltimore on the 20th October, 1851.

The Exhibition will be held in the SPLENDID NEW HALL of the Institute, (fronting on Baltimore street) now being rapidly completed. Their edifice is centrally situated, chaste in its architecture, solid in its construction, and is *by far the largest and most complete building in the United States, devoted to the Mechanic Arts.* It may be added that this building is 355 feet long by 60 in breath, with an average height of 68 feet, containing some twelve apartments, the largest of which is 255 feet by 60, and that the cost will be over $70,000.

To this Exhibition, the Managers ask the attention of all engaged in industrial pursuits throughout the country, and cordially invite them to contribute specimens of their best productions for public inspection, and to compete for the prizes offered by the Institute. These prizes consist of GOLD and SILVER MEDALS, DIPLOMAS, etc., which were last year distributed as follows:—*Gold Medals*, 16; *Silver ditto*, 90; *Diplomas*, 60; besides 85 articles of Jewelry, etc., to ladies. *Fair play will be scrupulously observed towards all*, and every facility of Steam power, shafting, fixture, labor, &c., &c., will be amply provided *free of expense.* The machinery will be under a special superintendent, and a fine display of it is looked for. The last exhibition of the Institute was visited by more than 40,000 persons, and with their vastly improved accommodations and alterations, this number will be doubled at the coming display, embracing many Virginians, Pennsylvanians, and other strangers from the South and West.

Joshua Vansant, President.
Ed. Needles, } Vice Presidents.
F. A. Fisher, }
Samuel Sands, Rec. Sec'y.
Wm. Prescott Smith, Cor. Sec.
F. J. Clare, Treasurer.

BOARD OF MANAGERS.

Ross Winans,	Simeon Alden,
P. S. Benson,	J. T. Watson,
Josiah Reynolds,	W. Robinson,
Thomas Stowe,	*Wm. A. Boyd*,
Thos. J. Lovegrove,	*Adam Denmead*,
A. Flannigain,	*C. W. Bentley*,
E. Larrabee,	*Geo. R. Dodge*,
John F. Davis,	*Saml. E. Rice*,
Wm. H. Keighler,	*John F. Mereditt*,
Richard Edwards, Jr.,	*W. Abrahams*,
Wm. Bayley,	*Thos. Trimble*,
R. Eareskson,	*Chas. Suter.*

(☞ The last nine *in Italics* are the Committee on Exhibition.)

The Hall will be opened for the reception of goods on MONDAY, 13*th October*; on the next Monday, 20th, at 7 P. M., the Exhibition will be formally opened to the public, and will *positively* close on Wednesday, 19th November. Articles *for competition* must be in the Hall by *Thursday* night, Oct. 16, *unless delayed in shipment after starting in ample time.*

Those who intend depositing, will give the Committee or the Agent, notice as early as possible, stating *the nature of the goods, and probable amount of room required*, to exhibit them to advantage

☞ Circulars, containing a view of the new Hall and the full regulations of the Committee, with special information, if required, may be had promptly, by addressing the undersigned, or the Institute's Agent, J. S. Selby, Baltimore. *post-paid.*

ADAM DENMEAD,
Chairman Com. on Exhibition for 1851.

Wilmington and Manchester Railroad.

$300,000 *Seven per cent. Mortgage Coupon Bonds.*

SEALED PROPOSALS will be received by the subscribers, until THURSDAY, the 10th day of July next, for three hundred thousand dollars of the first and only Mortgage Bonds of the Wilmington and Manchester Railroad Company, bearing interest at the rate of 7 per cent. per annum; principal and interest redeemable in the city of New York; the principal on the 1st June, 1866.

The Bonds are in sums of $1000 each, with coupons payable at the Merchants' Bank, New York, on the 1st December and 1st June in each year, convertible into the capital stock of the company, at the option of the holders.

They are issued under acts of the Legislatures of North and South Carolina, secured by a Mortgage or Deed of Trust, to Edward Sandford, Esq., of New York, in trust for the holders of the Bonds.

The Deed of Trust covers the entire line of road completed and to be completed from Wilmington, in N. C., to Manchester, in S. C., a distance of 162 miles, costing, when completed with a heavy T rail, and equipped, $1,600,000. The extraordinary adaptedness of the country to the construction of a railway accounts for this low lost.

The Trustee is empowered, in case of 60 days' default in payment of principal or interest, to take possession of the entire line of road, with its equipments, stations, income, franchise, &c., the same to sell, at his discretion, to the highest bidder for cash to pay arrears of principal or interest.

The whole amount of bonds authorized to be issued by vote of the stockholders, at a meeting called for that purpose in April last, and an order of the Railroad Board, is $600,000, to raise means to pay the residue of the iron rails and equipments, only $300,000 of which are now offered for sale.

The Company will owe no other debt when the road is completed.

This road will prove an important link in the great chain of railroads from Boston, New York, and Philadelphia, to New Orleans, connecting at Wilmington with the Raleigh and Wilmington railway, now in successful operation at Manchester, with the great South Carolina railroad leading from Charleston, in the direction of Montgomery, Alabama, now in the receipt of near a million of dollars annually from its business; will avoid the present disagreeable sea voyage from Wilmington to Charleston, shorten the travel to New Orleans one day's time, facilitate the mails, and will bring the South in more immediate and direct communication with the North.

The position of this road, its connections North and South, its easy grades, (none over thirty feet to the mile,) freedom from curves, and cheap construction, is such as to put it beyond the competition of any other line of road, for the immense inland travel between the North and New Orleans.

The greater part of this road traverses the most populous and fertile portion of South Carolina, producing cotton, corn, &c., in great abundance. Its local business alone will support it handsomely.

The census of 1850 shows that the district of country which will be tributary to this road, and dependent on it for transportation to market, produced in 1849 seventy thousand bales of cotton, of an average weight each of 450 lbs.

The Company has one million of available stock subscribed, most of which has been paid in and applied to construction, to which can be added, at any time, at the option of the company, $200,000, subscribed by the state of North Carolina on certain conditions.

It is estimated that the net annual profits will reach 12 per cent. per annum.

About one half of the entire line has been graded and bridged, the cross-ties being in the course of delivery and will be ready for the iron rails immediately.

The entire line is under contract for grading and bridging, and in a forward state towards completion.

Six thousand two hundred tons iron rails, T pattern, have been purchased and are in the course of delivery.

About $700,000 has already been expended in construction, including payment for the rails purchased.

It is expected that about 80 miles from Manchester East will be completed and in operation in the fall of this year, and the entire line to Wilmington early next year.

The management of this road is in highly respectable and competent hands. No work in the South undertaken or projected meets with more public favor than this.

For further and more particular information we refer to a printed "Exhibit" giving full details of the road and its affairs, which contains a Map of the line with its many connections, copies of the Bond and Mortgage, opinion of Counsel, &c., prepared by Gen. W. W. Harllee, President of the Company, which may be obtained on application at the office of the company, at Washington, N. C., or of the undersigned, by mail or otherwise, with any other information desired.

We deem the security a desirable one. The States of North and South Carolina, and the various corporations chartered within her limits, which have been borrowers of money, have uniformly, and under the most adverse circumstances, promptly met their pecuniary engagements. Public sentiment in these states has always taken high ground in regard to punctual fulfilment of public and private pecuniary obligations.

The $300,000 will be disposed of absolutely and without reserve to the highest bidder.

Sealed proposals, for any amount not less than $1000, will be received at the office of the undersigned until 3 o'clock on the 10th of July, proximo.

Proposals to be addressed to WINSLOW, LANIER & Co., 52 Wall Street, New York, endorsed "Proposals for W. and Manchester Railroad Bonds."

Parties whose bids are accepted will be required to pay twenty per cent. upon the amount awarded to them upon being notified of the acceptance of their bids, and the remainder in equal amounts on the first day of September, October, November and December next, but any party will be at liberty to pay in full at once if desired. Interest will commence from the day of payment.

WINSLOW, LANIER & Co.,
52 Wall St.

AMERICAN RAILROAD JOURNAL.

Saturday, June 28, 1851.

Stock and Money Market.

Money for speculative purposes is not so abundant as at our last report. The immense shipments of gold cannot but effect the market for the present, though the receipts exceed shipment. In the ordinary business channels money continues easy, but railroad securities are negotiated with more difficulty. There seems to be no cause of apprehension on account of the continued tightness of the market, which is probably merely temporary. Every branch of industry, save our iron and cotton manufacturing interests, are remarkably prosperous. The wheat crop, one of our great staples, is abundant beyond all former experience. Our other leading crops promise equally well.—While our production is so enormous, we cannot experience any very disastrous revulsion.

The receipts of all our great avenues of travel and transportation continue to show a steady increase. The earnings of the New York canals already exceed $1,000,000, being a gain of over $200,000, or 20 per cent. over those of last year, up to the same period, though there has been a reduction in the rate of tolls of at least 25 per cent. on many of the leading articles.

The Evening Journal gives the annexed statement of the quantity of flour, wheat, corn and barley, left at tide water during the 3d week in June, in the years 1850 and 1851, as follows:

	Flour. bbls.	Wheat. bush.	Corn. bush.	Barley. bush.
1850....	74,986	35,050	228.719	40
1851....	95,849	43,001	284,502	2,697
Increase.	20,863	7,951	55,783	2,657

The aggregate quantity of the same articles left at tide water from the commencement of navigation to the 22d June, inclusive, during the years 1850 and 1851, is as follows:

	Flour. bbls.	Wheat. bush.	Corn. bush.	Barley. bush.
1850...	573,310	197,824	921.752	110,625
1851...	1,095,025	490,003	2,570,069	98,416
Inc....	491,003	292,179	1,658,317	dec.12 209

The aggregate quantity of the same articles left at tide water from the commencement of navigation to the 22d June, inclusive, during the years 1849 and 1851, is as follows:

	Flour. bbls.	Wheat. bush.	Corn. bush.	Barley. bush.
1849....	664,767	364,105	1,723,884	94,081
1851....	1,065,025	490,104	2,570,069	98,416
Increase.	400,258	125,898	846,185	4,335

By reducing the wheat to flour, the quantity of the latter left at tide water this year, compared with the corresponding period of last year, shows an increase of 550,151 bbls. of flour.

The following table shows the quantity of some of the principal articles of produce left at tide water from the commencement of navigation to the 22d of June, inclusive, during the years 1849, 53 days; 1850, 61 days; 1851, 68 days.

Canal open,	May 1, '49.	April 22, '50.	Apl. 15, '51.
Flour, bbls....	664,767	573,310	1,065,025
Wheat, bush..	364,105	197,824	460,003
Corn, bush....	1,723,884	921,752	2,570,069
Barley, bush ..	94,081	110,625	98,416
Rye, bush.....	79,385	124,879	62,369
Other grains..	571,950	572,740	1,060,119
Beef, bbls.....	16,964	25,568	24,701
Pork, bbls.....	58,607	40,969	41,019
Ashes, bbls....	14,133	15,746	12,758
Butter, lbs.....	876,809	530,737	778,682
Lard, lbs.....	6,182,968	5,159,026	9,258,100
Cheese, lbs....	2,329,657	2,332,823	915,361
Wool, lbs.....	672,637	622,555	486,286
Bacon, lbs....	5,687,273	6,101,567	8,517,953

This does not include Waterford.

In another column our readers will find an Advertisement of the Wilmington and Manchester railroad company, for money on their mortgage bonds. The object of the above road is to supply the only link wanting to connect the roads of the North and South. At the present time, after reaching Wilmington, travel is forced to take the dangerous route by sea to Charleston or Savannah.—The above would give us a continuous line of railroad from the interior of Maine to Montgomery, Ala. There are now in South Carolina, Georgia and Alabama, about 1000 miles of railroad, and for all these the Wilmington and Manchester railroad would constitute a great trunk line North.—The road will be economically built, is in good hands, and the bonds are based upon a sufficient amount of private subscriptions to make the security perfect. Persons wishing to invest in railroad securities will find nothing better.

A large sale was made during the past week of the Pennsylvania Coal company's 7 per cent bonds, at par, but the bonds we presume were taken by the stockholders, and the rate quoted is no indication of the state of the market.

The English iron market remains dull. Below we give an extract from the Circular of Wm. Bird & Co., London, with the quotations at the latest dates.

"Our iron market continues depressed, prices, therefore, rule low. *Rails* have this week been done at £5 2 6 in Wales, net cash.

Common Bars range from £4 10 to £4 15, 3 per cent discount, free on board. Wales according to mark.

Staffordshire Iron—A fair demand for good qualities at list prices. Best marks, 'Crown' BBH, IB, Lion, etc.—say

Bars, £7 15. Hoops, £7 5. Sheets, £8 5. Nail rods, £6 7 6, at Liverpool, 1½ per cent. discount—lower qualities from 5s. to 10s. per ton less.

Scotch Pigs remain with very little variation at former quotations, viz: 41s. for No. 1 Garthsherrie; 40s. for No. 1 good manufactured bars; 39s. 6d. for mixed Nos.—net cash at Glasgow.

Tin Plates, dull at 31s. for best charcoal in London; 30s. to 30s. 6d. for do. in Liverpool, 3 per ct. discount.

Spelter is dull of sale at £14 15s., but found buyers at £14 10 for arrival—the stock on hand (over 13,000 tons) considerably exceeds the demand and prevents purchases to any extent being made."

Little Miami Railroad.—The receipts of the Little Miami railroad company for the six months ending June 1st, were.....$220,439 73
Expenses during same period..... 98,361 41

$122,078 32
Estimated earnings of stock in Columbus and Xenia road..... 10,000 00

Total net earnings.....$132,078 32

Cleveland and Columbus Railroad.—The business of this road up to May 31st, 1851, is as follows:

Rec'd from passengers.	Freight.	Total.
March.....$13,119 53	$6,281 16	$19,400 69
April 18,466 93	9,567 20	28,034 13
May..... 25,038 75	10,081 49	35,120 24
$56,625 21	$25,929 85	

Total receipts for three months.....$82,554 06
No. of Passengers carried, 31,679½.

Vermont Central Railroad Receipts.—Earnings for May, 1851.....$47,960 99
Earnings for May, 1850..... 17,945 90

Increase.....$30,015 09
or about 167 per cent. The receipts of the Vermont and Canada road are included in the above.

Boston, Concord and Montreal Railroad.—The earnings of the Boston, Concord, and Montreal railroad for the month of May, were.....$11,746 92
In same month last year..... 9,948 78

Increase this year.....$1,808 14
The road was in operation to Plymouth only during the month of May, and the above earnings, as compared with last year, are given on the same length of road.

Rutland and Burlington Railroad.—The annual meeting of the Rutland and Burlington railroad company, was held in Burlington on Wednesday, the 18th inst. It appears from the Treasurer's report:—

The cost of the road was.....$3,430,598 65
The cost of the furniture..... 324 647 12
The cost of other expenses..... 99,007 65
For dividends on preferred stock.... 489,187 64

$4,343,441 06
The Superintendant's report states that the net earnings of the road were.....$277,475 80
Running expenses..... 105,041 00

Balance.....$172,434 80
This balance is sufficient to pay the interest on the whole debt, and leave a balance of 2 per cent.

Cape Cod Branch Railroad.—The annual meeting of the stockholders of this corporation is to be held in Middleboro', on the second Tuesday of July. The Yarmouth Register furnishes the following statement of the receipts of the road:

Net earnings for the year ending June 1, 1851.....$29,330 36
For year ending June 1, 1850..... 25,890 27

Increase.....$3,440 09
The net earnings pay the interest on the funded and floating debts, and six per cent. on the par value of the stock.

Boston and Providence Railroad.—Receipts for the year.....$383,816 67
Expenses..... 184,218 24

Balance.....$199,535 63
All payments of interest are included in the above statement of expenses, and the result shows a profit of 6½ per cent. upon the capital.

SALES OF STOCK IN NEW YORK.

	June 26. Sales.	June 19. Sales.
U. S '67 Loan.....	116⅞	116¼
Erie R.R.....	83½	82½
Harlem R.R.....	73½	73½
Stonington.....	44½	44
L.I. R.R.....	18½	20
Norwich & Wor....	61	64
Del. & Hudson.....	121½	121½
Reading	56½	55⅞
Morris Canal.....	16½	16½
Erie income	97½	95½
" " Bonds.	103	103¼
Canton.....	73	73
Farmers Loan.....	69	68

SALES OF STOCKS IN BOSTON.

	June 25.	June 18.
Old Colony Railroad.....	68	69
Boston and Maine R.R.....	104	104
Eastern Railroad.....	102½	102½
Fitchburg Railroad.....	110	110
Michigan Central Railroad.....	103	103½
Northern Railroad.....	70½	71½
Vermont Central Railroad.....	35½	36
Vermont and Mass. R.R..-.....	30½	31
Western Railroad.....	100	107½
Ogdensburg Railroad.....	37½	39
Rutland Railroad.....	55	57
Boston and Worcester Railroad.	103½	103½
Rutland Railroad Bonds.....	97	97
Ogdensburg Railroad Bonds.....	99	99
Vermont Central R.R. Bonds....	91½	91½
Boston and Providence R.R.....	90	93½
Philadelphia, Wilm'gton & Balt.	30	30½
Concord R.R.....	55	55

Trautwine on Railroad Curves.

By John C. Trautwine, Civil Engineer,
Philadelphia, Pa.

In press, and will be published in a few days; accompanied by a Table of Natural Sines and Tangents to single minutes, by means of which all the necessary calculations may be performed in the field.

This little volume is intended as a field-book for assistants; and will be found extremely useful, as it contains full instructions, (with wood cuts) for laying out, and adjusting curves; with Tables of Angles, ordinates' etc., for Curves varying from 13 miles, down to 146 feet Radius.

A portable Table of Natural Sines and Tangents to minutes, has for a long time been a desideratum among Engineers, independently of its use in laying out curves.

The volume is neatly got up in duodecimo; and handsomely bound in pocket-book form.

Sold by Wm. Hamilton, Actuary of the Franklin Institute, Philadelphia. Price $1.

Also in press, and will be issued in a few weeks, "*Trautwine's Method of Calculating Excavation and Embankment.*"

By this method, which is entirely new, (being now made known for the first time) the cubic contents are ascertained with great ease, and rapidity,

by means of diagrams, and tables of level cuttings. Thin octavo; neatly half bound, $1. For sale by Wm. Hamilton.

Charlotte and South Carolina Railroad.

A meeting of the directors of this company took place at Chester on the 28th ult. We learn that the road is now completed ten miles this side of Winnsboro, and it is expected that it will progress at the rate of four or five miles per month, which will bring it to Chester about the 1st of October.

The income of the portion of the road opened since January 1, 1851, has been.....$17,105 18
Expenses..... 5,013 42

Net income.....$12,091 76

Railroad Iron.

CONTRACTS made by the subscribers, agents for the manufacturers, for the delivery of Railway Iron, at any port in the United States, at fixed prices, and of quality tried and approved for many years, on he oldest railways in this country.

RAYMOND & FULLERTON, 45 Cliff st.

JOHNSON, CAMMELL & Co's Celebrated Cast Steel,

AND

ENGINEERING AND MACHINE FILES,

which for quality and adaptation to mechanical uses, have been proved superior to any in the United States. Every description of square, octagon, flat and round cast steel, sheet, shovel and railway spring steel, best double and single shear steel, German steel, flat and square, goat stamps, etc. Saw and file steel, and steel to order for any purposes, manufactured at their Cyclops Steel Works Sheffield.

JOHNSON, CAMMELL & CO.,
21 Cliff St., New York.

November 23 1849.

Bowling Tire Bars.

40 Best Flange Bars 5½x2 inches, 11 feet long.
40 " " 5½x2 " 7 feet 8 in. long.
40 " Flat " 6x2 " 11 feet long.
40 " " 6x2 " 7 feet 8 in. long.

Now in store and for sale by

RAYMOND & FULLERTON,
45 Cliff street.

Car Wheel Iron.

100 Tons "Columbia" No. 2 Cold Blast Charcoal Iron.
300 Tons "Salisbury" No. 1, do. do.

For sale by CHARLES T. GILBERT,
No. 80 Broad st.

New York, Sept. 21, 1850.

Railroad Spikes.

THE subscribers are prepared to make and execute contracts for Railroad Spikes of a superior quality, manufactured by the New Jersey Iron Company, at Boonton. DUDLEY B. FULLER & CO.
139 Greenwich st. corner of Cedar.

S. S. Keyser & Co., IRON WAREHOUSE,

Corner of South and Pratt Streets,
BALTIMORE, MD.

Selling Agents for the Rough and Ready Bar Iron and Elk Boiler and Flue Iron Rolling Mills, Sarah and Taylor Furnaces, and Wrightsville Hollow Ware Foundry, and Dealers in Bar and Sheet Iron, and Cast, Sheer, German, Blister, Spring and Electerised Steel, etc., etc.

To Railroad Companies.

SALISBURY REFINED IRON.

THE Undersigned, having enlarged and perfected his Works, is now prepared to furnish Locomotive Tire of a better quality than have heretofore been used. Railroad Companies who may wish it, will be furnished with a set for trial, not to be paid for until they are satisfied of their superior quality over any other. Also made at short notice, and in the best manner, Locomotive Cranks, Engine and Car Axles, and other Locomotive Forgings.

All work ordered from me will be made of Salisbury Iron, and done in the best manner.

Address HORATIO AMES,
Falls Village, Conn.

May 1, 1851.

To Contractors.

PROPOSALS are invited for laying the superstructure on the first 38 miles of the Manassas Gap Railroad, up to Farrowsville;—the work to be commenced in August next. Plans and specifications may be seen at the office in Alexandria, after the 28th inst. Bids will be received up to the 5th of July

ENGINEER'S OFFICE, ALEXANDRIA.

Notice to Contractors.

Engineers Office, E. T. & V. R. R. Company,
Greenville, E. T., June 5th, 1851.

PROPOSALS will be received until the 1st day of October next, for the Grading and Masonry of that part of the E. T. & V. Railroad between the Eastern terminus of said road at King's Meadow, and Rheatown, in Greene County, a distance of about forty-seven miles. A large amount of very heavy work, both in Grading as well as Masonry, will be found on this division, offering strong inducements to able Contractors.

Maps, Profiles, and Specifications can be seen at this Office, on and after the 20th of July next.

The Company reserve the right to reject all, or any proposals that they deem unsatisfactory.

Proposals should be directed to the Treasurer and Secretary of the E. T. & V. Railroad Company, Jonesborough, E. T.

LLOYD TILGHMAN,
Chief Engineer.

SUPERIOR BLACK WRITING & COPYING
INK.
Jones' Empire Ink.

87 Nassau st., Sun Building, New York city.

Net prices to the trade—

Quarts, per dozen,	$1 50	6 oz. per dozen,	$0 50
Pints, "	1 00	4 " "	0 37½
3 ounces, "	0 62½	2 " "	0 25

On draught per Gallon, 20 cents.

This is the best Ink manufactured, it flows freely, is a good copying ink, and will not mould, corrode, precipitate or decay. Orders for export, or home consumption, carefully and promptly attended to by

21tf THEODORE LENT.

Lovegrove's Patent Cast Iron Water and Gas Pipes.

THE Subscriber, the Inventor and Patentee of the Centrifugal mode of giving form to metallic substances while in a molten state, is preparing to make Cast Iron Water and Gas Pipes, of any dimensions, at prices much lower than they can be made in the old manner, and the pipes warranted to stand a pressure of three hundred pounds to the square inch, and to be soft enough to drill. Steam Engines and all kinds of machinery. Cast Iron Doors and Frames, and Mill Castings of every description, made to order.

THOMAS J. LOVEGROVE,
Machinist and Founder,
West Falls Avenue, below Pratt st., Baltimore.

Railway Iron.

3000 TONS, 50, 57, and 60 lb. Rails, made of best English Iron and under particular specifications.

Also;

Rails imported on commission or at a fixed price, delivered at a port in England, or at any port in the United States. Apply to

DAVIS, BROOKS & CO.,
June 5, 1851. 28 Beaver st., New York.

Spikes, Spikes, Spikes.

ANY person wishing a simple and effective Spike Machine, or a number of them, may be supplied by addressing J. W. FLACK, Troy, N. Y.
or, MOORE HARDAWAY, Richmond, Va.
March 6, 1850.

Wheel, Forge and Foundry Iron.

LOCUST GROVE Wheel Iron of great strength and superior chilling property.

Balt. Charcoal Forge Iron, from Patuxent, Curtis Creek and Gunpowder furnaces.

Elkridge Foundry Iron, of superior strength and softness. Anthracite and Charcoal Iron from Pennsylvania and Virginia. Gas and Water Pipes, Lamp Posts from Elkridge furnace.

LEMMON & GLENN,
6m9 62 Buchanan's Wharf, Baltimore.

TO CONTRACTORS.

Engineer's Office, S. S. R Road Co.
Petersburg, Va., May 27, 1851.

PROPOSALS will be received at the Engineer's office, South Side Railroad, at Petersburg, Va., until the 31st of July next, for the construction of Appomattox Bridge, to be erected near Farmville.

The Bridge will be about 3000 feet long and 80 feet high; to consist of a wooden superstructure resting on abutments and piers.

The piers will be of brick or stone, to be determined after receiving the proposals.

Good brick earth can be obtained near the site of the Bridge.

The proposals may be made for the structure complete, or for the various items of work and materials, viz.: Masonry, furnishing Bricks or Timber; workmanship of laying Bricks and workmanship of superstructure.

Security will be required for the fulfilments of the contracts, and it will be necessary that each proposal be accompanied with a letter from a responsible person or persons, stating that they will become security.

C. O. SANFORD,
Ch. Engineer, S. Side R. Road.

To Contractors.

OFFICE PACIFIC RAILROAD CO.,
St. Louis, Mo., May 16, 1851.

THE Graduation, Masonry, and the Laying of the Superstructure of the first Division of the Pacific Railroad, comprising about 45 miles from the city of St. Louis, westward, will be ready for contract on the 20th of June next.

Proposals will be received at the Engineer's Office, St. Louis, from the 20th to the 30th of June, where plans and specifications will be shown. The line will be ready for inspection on and after the 20th of June.

The line will be divided into sections of about one mile each, but offerers can include as many of them in one bid as may suit their convenience.

The company will not bind itself to accept the lowest offer, unless in all other respects satisfactory, but reserves the power to dispose of the work in such manner as may appear most advantageous to the interests of the company.

The Division will embrace about one million three hundred thousand (1,300,000) cubic yards of graduation, and about thirty three thousand (33,000) cubic yards of masonry.

THOMAS ALLEN, President.
JAMES. P. KIRKWOOD, Chief Engineer.

Notice to Contractors.

Columbus, Piqua and Indiana Railroad.

SEALED PROPOSALS will be received at the Engineer's Office of the Columbus, Piqua and Indiana Railroad Company, at Urbana, on the 8th day of July, 1851, for the Grubbing, Grading and Masonry of that portion of the line extending from St. Paris, in Champaign county, to Columbus, a distance of fifty-six miles. Plans and specifications of the work may be seen from the 1st to the 8th of July, at the office. The Directors reserve the right to retain bids for twenty days after the 8th, before declaring the work.

The names in full of all the parties should be given in the proposals.

A. G. CONOVER, Engineer.
Piqua, May 20, 1851. 3t22

Railroad Iron.

THE Subscribers, Agents for the Manufacturers, are prepared to contract for the delivery of Railroad Iron at any port in the United States or Canada, or at a shipping port in Wales.

WAINWRIGHT & TAPPAN,
29 Central Wharf.

Boston, June 1, 1851.

Superintendent of a Railroad.

THE Post of Superintendent of a Railroad is wanted by a middle aged man, who can give satisfactory evidence of his capacity, integrity and qualifications for such a situation. Letters addressed to A.B., care of the Editor of the Railroad Journal, New York, (to whom the above would refer), will receive immediate attention.

New York, June 11, 1851.

To Railroad Companies, etc.

The undersigned has at last succeeded in constructing and securing by letters patent, a Spring Pad-lock which is secure, and cannot be knocked open with a stick, like other spring locks, and therefore particularly useful for locking Cars, and Switches, etc.

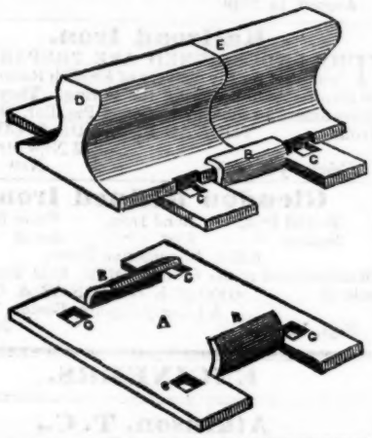
I also invite attention to an improved PATENT SPRING LOCK, for SLIDING Doors to Freight and Baggage Cars, now in use upon the Pennsylvania Central, Greensville and Columbia, S.C., Reading, Pa., and other Railroads.

Companies that are in want of a good Pad-lock, can have open samples sent them that they may examine and judge for themselves, by sending their address to

C. LIEBRICH,
46 South 8th St. Philadelphia.

May 9, 1851.

The American Railroad Chair Manufacturing Co.



ARE prepared to make WROUGHT IRON RAIL ROAD CHAIRS, of various sizes, at short notice.

By use of the WROUGHT IRON CHAIR, the necessity of the wedge is entirely done away—the lips of the chair being set, by means of a sledge or hammer, close and firmly to the flange of the rail.

The less thickness of metal necessary in the Wrought Iron Chair gives much greater power and force to the spikes when driven—and consequently a much less liability to the spreading of the rails by reason of the spikes drawing or becoming bent.

The less weight necessary in the Wrought Iron Chair, will enable us to furnish them at a cost much below that of CAST IRON CHAIRS.

DESCRIPTION OF THE AROVE CUTS.

Figure 1 is a perspective view of the rail secured in the chair, and fig. 2 is a perspective view of the chair itself. D, E, are sections of two rails placed together, and secured at the joint on the chair by the jaws B, B. The chair is bolted down by spikes C, C. In fig. 2, the chair is represented as made of a single block or plate A of wrought iron.

The chair is set in its proper place on the track, spiked down, and the ends of the two rails brought together within the jaws as represented in fig. 1.

For further information address,

N. C. TROWERIDGE, Secretary,
Poughkeepsie, N. Y.

June 1, 1851.

Railroad Commission Agency.

THE Subscriber offers his services to Railroad Co's and Car Makers for the purchase of equipment and furniture of roads and depots and all articles and materials required in the construction of cars, with cash or approved credit. No effort will be spared to select the best articles at the lowest market price.

He is sole Agent for the manufacture of the ENAMELED CAR LININGS, now in universal use. The best Artists are employed in designing new styles, and he will make to order pieces with appropriate designs for every part of the car, in all colors, or with silver grounds and bronzed or velvet figures.

He is also Agent for Page's Car Window Sash Fasteners, which is preferred by all who have used it to any other.

CHARLES STODDER,
75 Kilby st., Boston.

June 20, 1851. 3m.

LOWMOOR
AND
U. S. BEST FINCH IRON.
To Iron Merchants.

JOHN FINCH & SONS, Iron Merchants, Liverpool, now are, and for more than twenty years past have been, sole Agents for the LOWMOOR IRON COMPANY, for the United States and Canada, for the sale of their well known Railway Tire Bars, and Axles, Piston Rods, Boiler Plates, Angle, Rivet, and all other kinds of Lowmoor Iron: also, sole Agents for the sale of the superior Staffordshire Iron stamped "FINCH CROWN" and "U. S. BEST FINCH;" and Merchants and Wholesale Dealers in all other kinds of British Iron.

—

We hereby inform our friends and the public that we have this day appointed Mr. WM. BAILEY LANG, of Boston, as our only representative to receive orders and to transact our general business in the United States.

For JOHN FINCH & SONS.,
JOHN FINCH Sen.

Boston, April 11, 1851.

—

LOWMOOR and other Bent, Welded and Blocked RAILWAY TIRES, ready for use, E. FINCH'S Patent Dovetailed and other kinds of WROUGHT IRON RAILWAY WHEELS, with, or without the finished Axles, for Locomotives and for Passenger and Merchandise Cars, also Wrought Iron Railway Chairs, Railway Spikes, etc.

—

To the Managers of Railways, Engineers and others:

Gentlemen:—We, FINCH & WILLEY, Engineers, Liverpool, Manufacturers of the above articles, respectfully inform you that we have this day appointed Mr. WM. BAILEY LANG, of Boston, as our sole Agent for the sale of said articles, and the transaction of our business in the United States of America, and for whom we solicite your kind attention and patronage.

For FINCH & WILLEY,
JOHN FINCH, Sen.

Boston, April 11, 1851.

—

Having accepted the above Agencies, I beg leave to solicit your orders, which shall at all times receive my prompt and careful attention. Please address all communications either to MESSRS. JOHN FINCH & SONS or MESSRS. FINCH & WILLEY, Liverpool; or to me, at my Steel Warehouse, No. 9 Liberty Square, Boston.

Yours very respectfully,
WM. BAILEY LANG.

Boston, April 11, 1851.

—

The following are testimonials of the quality of FINCH & WILLEY'S WROUGHT IRON RAILWAY WHEELS from the Yorkshire and Lancashire Railway Co., one of the largest in Great Britain, and from the London and North Western Railway Co., the largest Railway Company in the world.

—

LONDON AND NORTH WESTERN RAILWAY,
(Northern Division,)
WAGON DEPARTMENT, ORDSALL LANE,
Manchester, January 4, 1851.

Gentlemen:—I have very great pleasure in bearing my testimony to the excellent quality of your Wrought Iron Railway Wheels.

This Company have many of them now in use on their lines, and during my experience, as their Superintendent, which is now upwards of 9 years standing, I have not known any of them to fail during that time.

I am, Gentlemen, yours, truly,
OWEN OWENS.

MESSRS. FINCH & WILLEY,
Windsor Foundry.

—

LANCASHIRE AND YORKSHIRE RAILWAY,
Wagon Department, Jan. 3, 1851.

Messrs. Finch & Willey,

Gentlemen: In reply to your request writing me to give my opinion of the 700 sets of Wrought Iron Wheels you furnished this company during the years 1847 and 1848, I have much pleasure in stating that we have not had a *single instance* of your Wheels failing in any respect, and I consider them equal if not superior to any Wheels we have on this line of railway. The *Tires* being LOWMOOR iron, 1¼ inch thick, I have no doubt they will run under ordinary goods' wagons 12 years without any repairs more than the tires turning up. I am Gentlemen,

Yours, truly, WM. EMMETT.

—

☞NOTE.—4 Wheels and 2 Axles are one set, consequently this order contained 2800 WHEELS and 1400 AXLES; value over $100,000.

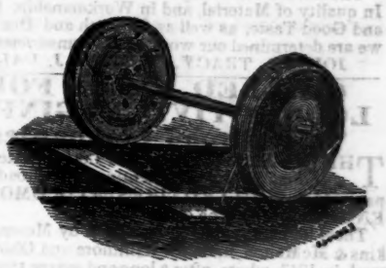
Boston Locomotive Works,

—Late Hinkley & Drury—

No. 380 Harrison Avenue,
BOSTON.

Locomotive and Stationary Steam Engines; Boilers; Iron, Brass, Copper and Composition Castings; Coppersmith's Work, and all kinds of Railroad Machinery furnished at short notice.

ALSO

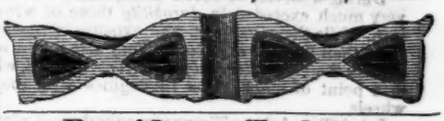


Van Kuran's Improved Rail-Road Wheel,

Patented May 1, 1849. Manufactured under the personal superintendence of the Patentee, as above.

Orders for any quantity of wheels executed with dispatch, and wheels and axles fitted in the very best manner and at the lowest rates. Address

DANIEL F. CHILD, Treasurer, Boston.



Providence Tool Co.,

MANUFACTURERS OF

Plane Irons, Tooth Irons, Soft Moulding and Rabbet Irons, Cornice Irons, Plow Bitts, and Planing Machine Knives:

NUTS, WASHERS AND BOLTS.

—ALSO—

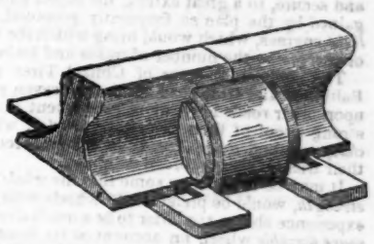
PLATE HINGES AND PICK AXES.

They are prepared to execute orders for all descriptions of Cold Punching and Job Work.

WM. FIELD, Agent. RUFUS WATERMAN, Treas.

PROVIDENCE, R. I.

Railroad Iron,
SPIKES, AND
WROUGHT IRON CHAIRS.



THE Undersigned, Agent for Manufacturers, is authorised to contract for Welsh *Railroad Iron* of the best quality, and deliverable at any port on favorable terms, also *Spikes and Wrought Iron Chairs*, made from the best iron, and of any pattern and weight. The new Wrought Iron Chair, with the introduction of a "Key," as per the annexed plan, will be found a great improvement on the old pattern.

Boiler Plates of superior quality, perfect regularity in the squaring and thickness, and made with great care.

Samples can be seen at the office, No. 20 Beaver st.

CHARLES ILLIUS

RAILROAD CAR MANUFACTORY

TRACY & FALES,
GROVE WORKS, HARTFORD, CONN.
Passage, Freight and all descriptions of

RAILROAD CARS,

AS WELL AS

LOCOMOTIVE TENDERS,

Made to order promptly.

The above is the Largest Car Factory in the Union. In quality of Material, and in Workmanship, Beauty and Good Taste, as well as Strength and Durability, we are determined our work shall be unsurpassed.

JOHN R. TRACY. THOS. J. FALES.

CHILLED TIRES FOR LOCOMOTIVE ENGINES.

To Railroad Companies.

THE Undersigned, Assignee of Letters Patent, respectfully invites the attention of Railroad Companies to the CHILLED TIRES for LOCOMOTIVE ENGINES, which he offers for sale.

These Tires were first introduced by Messrs. Perkins & McMahon, upon the Baltimore and Ohio Railroad, in 1843. where, after a long and severe trial, they were generally adopted, on both passenger and freight engines, and now have entirely superseded Wrought Tires on that road, on which are many engines of the heaviest class, which ascend grades of *eighty-five feet per mile*, taking with them *one hundred and twelve tons*, exclusive of cars. This performance shows in some measure the *adhesive* character and *strength* of the Tire.

During a service of seven years, these Tires have very much exceeded in *durability* those of wrought iron, while their first cost, and expense of repairs, is more than *fifty per cent. less*. They also retain more equally their *diameter and proper form of tread*, which is a point of much value in engines with *coupled* wheels.

It is believed these Tires are peculiarly well adapted to freight engines, as the objection to *coupling* the wheels of locomotives is the *encreased friction*, arising principally from the *unequal* wear of wrought tires; and hence most of the freight engines where wrought tires are used, have but *four* wheels as *drivers*, with frequently a weight of *sixteen tons*, or more, upon them. which may be of no disadvantage to the engine, although its effect upon the *track* is like a car with *sixteen tons* upon *four* wheels, and it is presumed no one would permit *cars* so heavily loaded to pass over their road.

As Chilled Tires wear more *uniformly* than those of wrought iron, there can be no doubt when these are used, that the weight *necessary for adhesion* may be distributed upon more *driving* wheels, without any material disadvantage to the engine, and thus placing *less weight* upon a *single point*, would relieve the *track*, and secure, to a great extent, the object sought to be gained by the plan so frequently proposed, of using *light* engines, which would bring with it the necessity of *increasing* the number of trains and train hands.

The complete success of Chilled Tires upon the Baltimore and Ohio road for the last seven years, and upon other roads for a more subsequent period, is a strong proof of their *practical character*, while their *cheapness* and *durability*, it is believed, recommend their trial by every railroad company.

It may be thought by some that the *whole* wheel for *strength*, would be preferable to wheels with tires, but experience shows the latter to be a much *stronger and more durable* wheel, on account of its freedom from *tension*, which is never the case with a *whole* wheel. That TENSION has much to do with the breaking of wheels and tires, may be inferred from the fact, that a set of *chilled* tires, five feet diameter, on a first class passenger engine, have been in constant service during the past winter, on one of our Eastern roads, and have withstood the severities of the season, where whole wheels and *wrought* tires have broken. And it may be proper to remark, that wherever chilled tires have been introduced, whole wheels as drivers are invariably abandoned, they being far more expensive to maintain, as there is a *crank* to form as often as a wheel is renewed, which is *not* the case on the renewal of a tire

The peculiar manner of *fastening* these tires to the wheel without *shrink*, applies equally well to wrought tires, and is of much importance where they are used, as it secures them against the TENSION or STRAIN they receive by the present plan of *shrinking* them to the wheels, which undoubtedly is the cause of wrought tires breaking so frequently, particularly in cold weather, which produces a greater *contraction* of the tire, thereby increasing the *strain*. This plan makes the tire perfectly secure upon the wheel, and is attended with *less expense*, as will be seen by the following testimonials, which are respectfully submitted.

Lowell, March. 1851. L. B. TYNG.

TESTIMONIALS.

Baltimore and Ohio R. R. Office,
Jan 2, 1850.

Mr. L. B. TYNG, Lowell, Mass.—Sir: Your favor of the 26th ult, is before me, asking my opinion of the Chilled Cast Iron Tires, of Messrs. Perkins & Mc Mahon, patentees. I do not hesitate to speak favorably of them, nor to say that I would give them the *preference* over wrought iron tires, whenever the adhesive tenacity of the latter to the rails is not *all* called for, there being somewhat less adhesion to the chilled wheel.

This can, however, scarcely be called a practical point, as nearly all of the Passenger Engines now in use have a *surplus of adhesion*, and nearly all Freight Engines being provided with the sand box, for emergencies arising from sharp curves, heavy grades or wet rails.

The Chilled Tire is very much cheaper in first cost, will last longer, and offers a facility for putting it on the wheel, rendering comparison with the wrought iron tire an absurdity—it not being necessary even to take the wheels from the machine for the purpose.—Many of them are in successful use on this road, and I consider its curves and other peculiarities the most severe of all existing tests. One set of five feet in diameter, has run 50,000 miles under one of our Passenger Engines, and will to all appearance, run as many more; and, in the mean time, they have not cost a dollar for repairs or adjustment.

It may be suggested that they might not stand a Northern frost. This is possible; but I believe otherwise, as the weather here is occasionally as severe as in Boston, and if I had charge of a northern road, after the experience I have had here, I would make their trial one of my very first acts.

Respectfully your Ob't Serv't,
WM. PARKER, General Supt., etc.

—

January 29, 1851.
Philadelphia, Wilm. and Balt. R. R. Office,
Wilmington, Del.

Mr. L. B. TYNG—Sir: We have used the solid Cast Iron Chilled Wheel, and Cast Iron Chilled Tire, for engine drivers, on this road since 1842. When wrought iron tires under new engines, purchased from time to time, wear out, I invariably replace them with the Chilled Tire of Messrs. Perkins & McMahon, patentees.

These Tires will last, on the average, three times as long as wrought tires; seldom requiring renewals under three years, and lasting much longer usually. We have a set which has been in constant use for five years, and still in fair order. The adhesion supplied by the Chilled Tires, I find in practice with engines of the same model and weight, to be equal to that given by wrought tires. This is certainly a fact, though not an acknowledged one, in general. Those who think otherwise, will in time change their opinions.

I am of opinion that the Chilled Tire is as safe as the wrought, at any temperature. In eight years use, we have broken but one tire out of more than fifty, and that by a violent concussion on the occasion of a run off.'

The use of the Chilled Tire, and the ease and rapidity with which it may be replaced, would certainly enable a road to do the same amount of work with fewer engines—since but little time would be lost in laying up an engine for new tires, or for turning down old ones, as must be done when wrought tires are used.

I am yours respectfully,
I. R. TRIMBLE,
Engineer and General Supt.

—

Office Eastern R. R., Salem, Dec. 23, 1850.

L. B. TYNG, Esq.—Sir: Your favor of Nov. 30th, inquiring respecting the Chilled Cast Iron Tires, came duly to hand, and in answer, I will say, that this road have in use one set cast and fitted to the wheel, by Messrs. Bush & Lobdell, upon a twenty ton first class Passenger Engine, which has run in eight months, 26,639 miles, and to all appearance, are about as good as when they first commenced running.

In regard to the comparative expense of the cast or wrought iron tires, I do not hesitate to say that the difference would be vastly in favor of the former.

I have ordered a second set, and they will be put on to the engine immediately. Respectfully,
JOHN KINSMAN, Supt. E. R. R.

—

Chilled Tires for the various sized wheels, or wheels with either chilled or wrought tires fitted up upon this plan, may be had of the following persons:

ALDRICH, TYNG & Co, Lowell, Mass.
SMITH & PERKINS, Alexandria, Va.

Rights for using Tires upon the above plan, may be had on reasonable terms, of L. B. TYNG, Lowell, and at N. York.

Railroad Iron.

THE UNDERSIGNED, HAVING made arrangements abroad, are prepared to contract for the delivery of Foreign rails, of approved brands upon the most favorable terms.

They will also make contracts for American rails, made at their Trenton works, from Andover Iron, in whole or in part, as may be agreed upon.

They are prepared to furnish Telegraph, Spring and Market Wire; Braziers and Wire Rods; Rivets and Merchant Bars to order, all made exclusively from Andover Iron. The attention of parties who require iron of the *very best* quality for special purposes, is respectfully invited. COOPER & HEWITT,
17 Burling Slip, New York.

February 15, 1850.

Railroad Lanterns.

COPPER and Iron Lanterns for Railroad Engines, fitted with heavy silver plated Parabolic Reflectors of the most approved construction, and Solar Argand Lamps; manufactured by
HENRY N. HOOPER & CO.,
No. 24 Commercial St. Boston.

August, 16, 1849. 6m33

Railroad Iron.

THE UNDERSIGNED ARE PREPARED TO contract for the delivery of English Railroad Iron of favorite brands, during the Spring. They also receive orders for the importation of Pig, Bar, Sheet, etc. Iron. THOMAS B. SANDS & CO.,
73 New street,
February 3, 1849. New York.

Glendon Refined Iron.

Round Iron,	Band Iron,	Hoop Iron,
Square "	Flat "	Scroll "

Axles, Locomotive Tyres,
Manufactured at the Glendon Mills, East Boston, for sale by GEORGE GARDNER & CO.,
5 Liberty Square, Boston, Mass.

Sept. 15, 1849. 3m37

ENGINEERS.

Atkinson, T. C.,
Mining and Civil Engineer,
Orange and Alexandria Railroad, Alexandria, Va.

Clement, Wm. H.,
Little Miami Railroad, Cincinnati, Ohio.

Cozzens, W, H,,
Engineer and Surveyor, St. Louis, Mo.

Alfred W. Craven,
Chief Engineer Croton Aqueduct, New York.

C. Floyd-Jones,
Central Railroad, Decatur, Illinois.

Gay, Edward F.,
Columbia and Philadelphia Railroad, Philadelphia Pa.

Gilbert, Wm. B.,
Rutland and Burlington Railroad, Rutland, Vt.

Gzowski, Mr.,
St. Lawrence & Atlantic Railroad, Montreal, Canada.

Grant, James H.,
Nashville and Chattanooga R. R., Nashville, Tenn.

S. W. Hill,
Mining Engineer and Surveyor, Eagle River, Lake Superior.

Holcomb, F. P.
Southwestern Railroad, Macon, Ga.

Latrobe, B. H.,
Baltimore and Ohio Railroad, Baltimore, Md.

Miller, J. F.,
Buffalo and Conhocton Valley Railroad, Bath, N. Y.

Morris, Elwood,
Engineer, Chartiers Co, Pittsburgh, Penn.

Nott, Samuel,
Lawrence and Manchester Railroad, Boston,

Osborne, Richard B.,
Civil Engineer, Philadelphia.

Prichard, M. B.,
East Tennessee and Georgia R. R., Cleveland, Tenn.

W. Milnor Roberts,
Bellefontaine and Indiana Railroad, Marion, Ohio.

Roberts, Solomon W.,
Ohio and Pennsylvania Railroad, Pittsburgh, Pa.

Sanford, C. O.,
South Side Railroad, Virginia.

Schlatter, Charles L.,
Northern Railroad (Ogdensburg), Malone, N. Y.

Steele, J. Dutton,
Pottstown, Pa.

Trautwine, John C.,
Civil Engineer and Architect, Philadelphia.

Tinkham, A. W.,
United States Fort, Bucksport, Me.

Troost, Lewis,
Alabama and Tennessee Railroad, Selma, Ala.

Whipple, S.,
Civil Engineer and Bridge Builder, Utica, N. Y.

HOTELS.

DAVIS'S
ALHAMBRA HALL,
No. 136 Pratt street,
BALTIMORE.

Exchange Hotel,
Adjoining Eastern Railroad Depot,
BUFFALO, N. Y.
BY.....FISK & SPERRY,
Late of Delevan House, Albany.

MANSION,
Corner of Maine and Exchange Streets,
P. DORSHIMER. *BUFFALO.*

Barnum's City Hotel,
MONUMENT SQUARE, BALTIMORE.
This Extensive Establishment, erected expressly for a Hotel, with every regard to comfort and convenience, is situated in the centre and most fashionable part of the city, and but a few minutes' walk from the Railroad Depots and Steamboat Landings.
The House has lately undergone a thorough repair, embracing many valuable improvements, and will accommodate 250 Guests. BARNUM & CO.

American Hotel,
Pratt street, opposite the Railroad Depot,
BALTIMORE.
HENRY M. SMITH.....Proprietor.
Late of the Exchange & St. Charles Hotels, Pittsburg

Washington Hotel,
BY JOHN GILMAN,
$1 *Per Day.*
No. 206 Pratt street, (near the Depot,)
BALTIMORE.

GUY'S
United States Hotel,
(Opposite Pratt street Railroad Depot,)
BALTIMORE.
JOHN GUY. *WILLIAM GUY.*

DUNLAP'S HOTEL,
On the European Plan,
NO. 135 FULTON STREET,
Between Broadway and Nassau St.,
NEW YORK.

JONES' HOTEL,
NO. 152 CHESTNUT STREET,
PHILADELPHIA.
BRIDGES & WEST, ... Proprietors.

Fountain Hotel,
LIGHT STREET, BALTIMORE,
THURSTON.....Proprietor.

BUSINESS CARDS.

Walter R, Johnson,
CIVIL AND MINING ENGINEER AND ATtorney for Patents. Office and Laboratory, F St., opposite the Patent office, Washington, D. C.

Lithography.
JOHN P. HALL & CO.,
161 Main st., Buffalo, (Commercial Advertiser Build.)
Are prepared to execute all kinds of Lithography in good stole and at reasonable rates. Particular attention wil be paid to Engraving Railroad Maps, Engineer's Plans and drafts, etc., and orders in this line are respectfully solicited.

Cumberland, (Md.,) Coals for Steaming, etc.
ORDERS RECEIVED FOR AND FILLED by J. COWLES, 27 Wall St., N. Y.

J. & L. Tuckerman,
IRON COMMISSION MERCHANTS,
AND MANUFACTURERS OF
ULSTER BAR & POUGHKEEPSIE PIG IRON,
69 WEST STREET,
NEW YORK

Henry I. Ibbotson,
IMPORTER of Sheffield and Birmingham Goods. Also, Agent for the Manufacture of Telegraph Wire. 218 PEARL ST., NEW YORK.

Charles T. Jackson, M. D.,
STATE ASSAYER, late Geologist to Maine, Rhode Island, New Hampshire, and the United States, offers his services to his friends and the public in making any Chemical, Mineralogical or Geological researches that may be required for the improvement of Agriculture and the Manufacturing Arts. Particular attention will be paid to the exploration of mines and to assaying of ores of the metals.
State Assayer's office, 31 Somerset st.
Boston Sept. 3, 1850.

STEEL AND FILES.
R. S. Stenton,
20 CLIFF STREET, NEW YORK,
AGENT FOR
J. & RILEY CARR,
BAILEY-LANE WORKS, SHEFFIELD,
Manufacturers of Cast, Shear, German, Blister, and
Spring Steel,
Of all descriptions, *Warranted* Good.
FILES.
Manufacturers of Machinists' Warranted Best Cast Steel *Files*, expressly for working upon Iron and Steel, made very heavy for recutting.
☞ A full Stock of *Steel* and *Files* at all times on hand. 6m4

Dudley B. Fuller & Co.,
IRON COMMISSION MERCHANTS,
No. 139 GREENWICH STREET,
NEW YORK.

Manning & Lee,
GENERAL COMMISSION MERCHANTS,
NO. 51 EXCHANGE PLACE,
BALTIMORE.
Agents for Avalon Railroad Iron and Nail Works. Maryland Mining Company's Cumberland Coal 'CED —'Potomac' and other good brands of Pig Iron.

Samuel Kimber & Co.,
COMMISSION MERCHANTS
WILLOW ST. WHARVES, PHILADELPHIA.
AGENTS for the sale of Charcoal and Anthracite Pig Iron, Hammered Railroad Car and Locomotive Axles, Force Pumps of the most approved construction for Railroad Water Stations and Hydraulic Rams, etc., etc.
July, 27, 1849.

James Herron, *Civil Engineer,*
OF THE UNITED STATES NAVY YARD,
PENSACOLA, FLORIDA.,
PATENTEE OF THE
HERRON RAILWAY TRACK.
Models of this Track, on the most improved plans, may be seen at the Engineer' soffice of the New Yor and Erie Railroad.

PLUSHES
FOR
Railway Cars & Omnibuses.
F. S. & S. A. MARTINE,
112 WILLIAM ST., NEAR JOHN.
ARE now receiving a large and complete assortment of Plain and Figured PLUSHES, of their own importation, which will be sold at the lowest market price, viz: Crimson, Maroon, Scarlet, Green, Blue, Purple, etc.
ALSO—CURLED HAIR, the best manufactured in market.

To Railroad Companies, Machinists, Car Manufacturers, etc., etc.
CHARLES T. GILBERT,
NO. 80 BROAD ST., NEW YORK,
IS prepared to contract for furnishing at manufacturer's prices—
Railroad iron,
Locomotive Engines,
Passenger and Freight Cars,
Car Wheels and Axles,
Chairs and Spikes.
Orders are invited; and all inquiries in relation to any of the above articles will receive immediate attention

Manufacture of Patent Wire ROPE AND CABLES,
For Inclined Planes, Suspension Bridges, Standing Rigging, Mines, Cranes, Derrick, Tillers, &c., by
JOHN A. ROEBLING, Civil Engineer,
TRENTON, N. J.

FORGING.
Ranstead, Dearborn & Co.,
MANUFACTURERS OF
LOCOMOTIVE CRANKS AND CAR AXLES,
ALSO
WROUGHT IRON SHAFTING,
And All Kinds of Hammered Shapes.
Office 25 Foster's Wharf, Boston.

Samuel D. Willmott,
MERCHANT, AND MANUFACTURER OF
CAST STEEL WARRANTED SAWS,
—AND FILES—
IMPORTER OF THE
GENUINE WICKESRLY GRINDSTONES
NO. 8 LIBERTY STREET,
NEW YORK.

Railroad Instruments.
THEODOLITES, TRANSIT COMPASSES, and Levels, with Fraunhoffers Munich Glasses, Surveyor's Compasses, Chains, Drawing Instruments, Barometers, etc., all of the best quality and workmanship, for sale at unusually low prices, by
E. & G. W. BLUNT,
No. 179 Water St., cor. Burling Slip.
New York, May 19, 1849.

IRON.

Iron.
Pig Iron, Anthracite and Charcoal; Boiler and Flue Iron, Spring and Blistered Steel, Nail Rods, Best Refined Bar Iron, Railroad Iron, Car Axles, Nails, Stove Castings, Cast Iron Pipes of all sizes, Railway Chairs of approved patterns' for sale by
COLEMAN, KELTON & CAMBELL,
109 N. Water St., Philadelphia.

Iron Store.
THE Subscribers, having the selling agency of the following named Rolling Mills, viz: Norristown, Rough and Ready, Kensington, Triadelphia, Pottsgrove and Thorndale, can supply Railroad Companies, Merchants and others, at the wholesale mill prices for bars of all sizes, sheets cut to order as large as 58 in. diameter; Railroad Iron, domestic and foreign; Locomotive tire welded to given size; Chairs and Spikes; Iron for shafting, locomotive and general machinery purposes; Cast, Shear, Blister and Spring Steel; Boiler rivets; Copper; Pig iron, etc., etc.
MORRIS, JONES & CO.,
Iron Merchants,
Schuylkill 7th and Market Sts., Philadelphia.
August 16, 1849. 1y33

Bowling Iron. Stamped B.O.

Railway Tire Bars | Rivet Iron
Locomotive and other Axles | Locomotive Frame do
Boiler Plates | Bars,
and every other description of this superior Iron.

The subscribers, agents for the sale of Bowling Iron, are prepared to execute orders for importation, especially for railway and machinery uses, with despatch from the manufacturers.

RAYMOND & FULLERTON, 45 Cliff st.

Ibbotson, Brothers & Co's
CELEBRATED CAST STEEL
AND
Best Cast Steel Royal Improved Files, well known as better adapted for Engineers' and Machinists' purposes than any now in use in the United States.

Every description of Square, Octagon, Flat and Round Cast Steel, Sheet, Shovel and Railway Spring Steel, etc., and Steel to order for any purposes—manufactured at their works in Sheffield—and universally known by the old stamp "Globe."

HENRY I. IBBOTSON, Agent.,
218 Pearl st., New York.

Smith & Tyson,,
IRON COMMISSION MERCHANTS,
BALTIMORE.

REFINED Juniata Charcoal Billet Iron for Wire.
Do. for Bridging, of great strength.
Flat Rock, Boiler and Flue Iron, rolled to pattern.
Elba, Wheel Iron of great strength and superior chilling properties. Elba Forge Iron, American Shot Iron, Cut Nails, Spikes and Brads, Nail and Spike rods, Railroad Spikes of superior quality, Wrought Chair plates of any pattern, punched or plain.

WILLIAM JESSOP & SONS'
CELEBRATED CAST-STEEL.

The subscribers have on hand, and are constantly receiving from their manufactory,
PARK WORKS, SHEFFIELD,
Double Refined Cast Steel—square, flat and octagon.
Best warranted Cast Steel—square, flat and octagon.
Best double and single Shear Steel—warranted.
Machinery Steel—round.
Best and 2d gy. Sheet Steel—for saws and other purposes.
German Steel—flat and square, "W. I. & S." "Eagle" and "Goat" stamps.
Genuine "Sykes," L Blister Steel.
Best English Blister Steel, etc., etc., etc.

All of which are offered for sale on the most favorable terms by
WM. JESSOP & SONS,
91 John street, New York.
Also by their Agents—
Curtus & Hand, 47 Commerce street, Philadelphia.
Alex'r Fullerton & Co., 119 Milk street, Boston.
Stickney & Beatty, South Charles street, Baltimore.
May 6, 1848.

Railroad Iron.

B. O. Railway Tires, Railway Wheels,
Scotch Pig Iron, Tin Plates and Banca Tin,
Muntzs Patent Metal Sheathing,
Baltimore Copper.

Contracts for Rails made on behalf of the manufacturers, for delivery at any ports in the United States, at fixed prices.

Bowling Tires and Tire Bars and Scotch Pigs imported to order.

Muntz's Ship-sheathing, and a general stock of Tin Plates and Banca Tin in store, and for sale by
RAYMOND & FULLERTON, 45 Cliff st.

IRONDALE PIG METAL, MANUFACTURED and for sale by the Bloomsburg Railroad Iron Co.
LINDLEY FISHER, Treasurer.
75 N. Water St., Philadelphia.

Car Wheel Iron.

THE celebrated cold blast "Conowingo" Pig Iron, for Railroad Wheels, Chilled Rolls, etc., for sale by
E. PRATT & BROTHER,
Baltimore, Md.

Railroad Iron.

3,000 TONS C. L. MAKE 63½ lbs. per yard, now landing and to arrive.

Also contracts made for future delivery of above superior make English Iron.

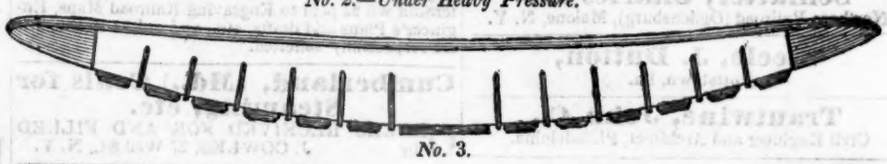
300 Tons Banks Best Iron, Round, Square and Flat.
200 " English Bar " " "
10 " 9-16 Square Iron for Railroad Spikes.

For sale in lots to suit purchasers by
DAVID W WETMORE.
New York, March 26, 1850. 3m

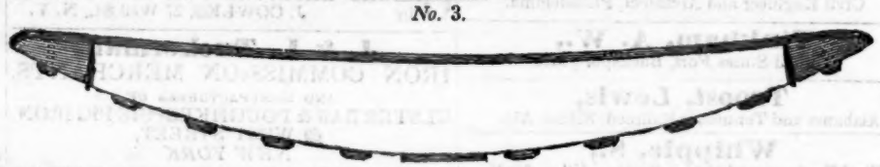
PATENT EXCELSIOR SPRING
for Railroad Cars, Locomotives, etc.

No. 1.—At Rest.

No. 2.—Under Heavy Pressure.



No. 3.



THESE Springs are composed of a Plate of Steel with Oak or Ash Wood, firmly riveted thereto, having saw kerfs in which are inserted flat plates of metal. The Spring is very powerful and yet sensitive.

They are now being manufactured and sold by the Excelsior Spring Company, under a Patent granted on 20th May, 1851.

The above Drawing, No. 1, represents a side view of the Spring when it is at rest. No. 2, shows the same when under heavy pressure. No. 3, represents a Spring having only two plates instead of the usual number inserted in the wood.

This is undoubtedly the best Spring of the day—it is very simple—easy of application—light—cannot get out of order—and it is without any exception the most adjustable spring now made—for it will spring fifty or five thousand pounds with the same ease.

The cost of the springs is *very much less* than that of any other.

The Excelsior Spring Co., determined that every spring shall be of the best quality, have established a Factory, where each spring is made directly under the eye of Mr. Bissell, the inventor—and before a spring is allowed to leave the factory it is subjected to a much severer test than it ever can be when at work. *Each Spring is guaranteed* to perform the required work.

Any person infringing on this patent will be prosecuted.

Office of EXCELSIOR SPRING COMPANY.
38 Broadway, New York.
June 7, 1851.

Railroad Spikes, Boiler Rivets, etc.

THE Subscribers, Agents for the sale of James S. Spencer's, Jr., Railroad and Boat Spikes, Boiler Rivets, and Wrought Iron Chairs for Railroads, made at his Works near this city, will execute all orders with promptness, despatch, and of the best quality.

ALSO IMPORTERS of English refined and Merchant bar Iron; Extra refined Car and Locomotive Axles (from 3½ to 6½ inches in diameter); B. O. Locomotive Tire (welded by Baldwin). Also, supply Boiler and Flue Iron cut to pattern or otherwise.—Spring, Shear, and Cast Steel, etc., etc., etc.

T. & E. GEORGE.
Philadelphia, November 14, 1850.

Railroad Iron.

THE Undersigned, Agents for Manufacturers, are prepared to contract for the delivery of English, Welsh and Scotch Rails, of any pattern and weight, also for every description of English, Welsh, Scotch, and Swedish Iron, Railway Chairs and Spikes, Rivets, Bolts, Nuts, Washers, Chain Cables, Anchors, Tin Plates, German Spelter, Iron Castings, and every description of Machinery.

WILLIAM BIRD & CO.,
Iron and Tin Plate Merchants,
44 Wall st., New York.
And at 5 Martin's Lane, City, London,
and 140 Buchanan st. Glasgow.
July 27th, 1850.

Railroad Iron.

THE "Montour Iron Company" is prepared to execute orders for Rails of the usual patterns and weights, and of any required length not exceeding 30 feet per rail. Apply to
THOS. CHAMBERS, President,
66 Broadway, N. Y.,
Or to the Agents,
CHOUTEAU, MERLE & SANFORD,
N0. 51 New st., New York.
September, 1850.

Railroad Iron.

THE Undersigned, Agents for the Manufacturers, are prepared to contract to deliver free on board at shipping port in England, or at port of discharge in the United States, Rails of superior quality, and of such weight or pattern as may be required.

VOSE, PERKINS & CO.,
74 South St.
New York, June 1, 1851.

Railroad Iron.

1650 Tons, weighing about 61 lbs. per yard, 40 tons, weighing about 52 lbs. per yard, and 825 tons, weighing about 53½ lbs. per yard, of the latest and most approved patterns of T rail, for sale by
BOORMAN, JOHNSTON & CO.,
119 Greenwich street.
New York, Aug. 26, 1850.

N.B.—B., J. & Co are also prepared to take contracts for English rails, delivered in any of the Atlantic ports of the United States.

Tredegar Iron Works.

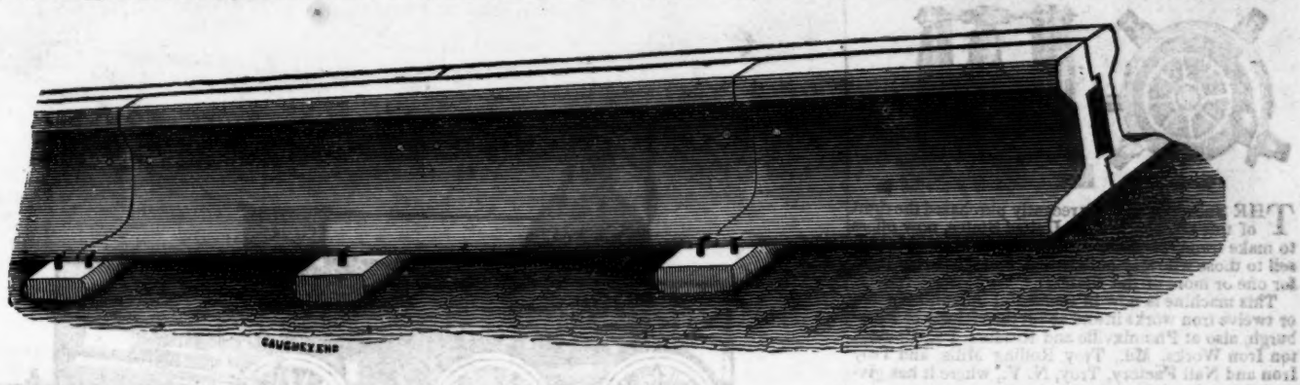
ROLLING MILL FOUNDRY AND MACHINE SHOPS. The undersigned continues to manufacture at his Works in this city (from best charcoal metal) Bar Iron of every description, embracing—Rounds and Squares, from ½ to 5 inches diameter. Flats, from ¾ to 7 inches, all thicknesses. Bands and Scrolls, all sizes. Boiler plate and Plough Iron. Railroad and Locomotive Axles and Tires. Locomotive Frames, Spikes and Plates. Hoops, Ovals, Half Ovals, Half Rounds, Angle, T, L, and indeed every description of Iron usually manufactured, all of which he warrants to be equal to any made in this country. He also manufactures at his Foundry and Machine Shops all descriptions of Railroad Work, say, Locomotives, Railroad Wheels and Axles complete and ready for the road, Railroad Chairs, etc. Also, Marine and Stationary Engines all sizes, Sugar mills and Engines, Horse mills, and every kind of Machinery usually required for the operations of the country. He has paid particular attention to getting up machinery, etc., for Gold Mine operations, and those in want of such work might find it to their advantage to give him a call. J. R. ANDERSON.
Richmond, Va., Sept. 10, 1850.

CUT NAILS OF BEST QUALITY, BAR IRON (including Flat Rails) manufactured and for sale by
FISHER, MORGAN & CO.,
75 N. Water St., Philadelphia.

TO RAILROAD COMPANIES, CAR MANUFACTURERS, etc.

THE Undersigned hereby gives public notice, that the Commissioner of Patents, pursuant to his decision in relation thereto, on the 8th day of October, 1850, issued to him a Patent for the sole right to manufacture, and exclusive use of the INDIA RUBBER CAR SPRING, on account of priority of invention of said Spring. F. M. RAY.
New York, Oct. 23, 1850.

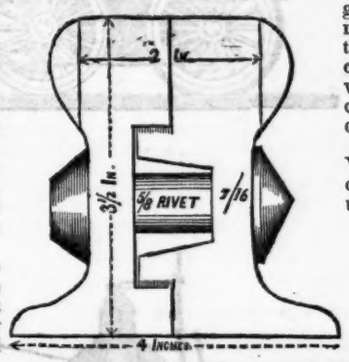
PATENT COMPOUND RAIL.



THE UNDERSIGNED NOW OFFER TO THE Railroad Public a new Compound Railroad Bar, which possesses, as they believe, a decided superiority over every kind now in use. The Cuts annexed will give a good idea of the form of the Rail, and the mode of combination.

This Rail has now been in use on the New York and Erie and the Utica and Schenectady Railroads for nearly two years, and has proved itself to be a *durable* and *continuous* rail, realizing the advantages of a theoretically perfect rail, over the one in common use. We invite the attention of Railroad Companies to a careful examination of the merits of the form now offered.

The advantages of this Rail are: first, it effects a saving of from 25 to 50 per cent. in the wear and tear of the machinery; secondly, it saves to a vastly greater extent in the repairs of track; thirdly, it secures a much higher rate of speed with the same power; and what is of still greater importance, it offers complete protection against most of the accidents to which companies are liable. For these reasons, it is believed to be not only the best, but the cheapest rail that can be used. In enumerating its advantages, the proprietors only repeat the statements of competent persons, who have had the best opportunities of judging of its merits.



This improved Rail is now being manufactured at the Works of the Mount Savage Iron Co. in Maryland. Any communications or enquiries addressed to either of the undersigned will receive prompt attention.

J. F. WINSLOW, President,
Troy, N. Y.
ERASTUS CORNING, Albany.
WARREN DELANO, Jr., N. Y.
JOHN M. FORBES, Boston.
ENOCH PRATT, Baltimore.

April 8, 1851.

Faggotted Car and Engine Axles

FORGED by RANSTEAD, DEARBORN & Co., Boston, Mass.

These Axles enjoy the highest repulation for excellence, *and are all warranted.*

Iron Trade of Pennsylvania.

DOCUMENTS and Statistics relating to the Manufacture of Iron in the State of Pennsylvania—giving a history of the manufacture from its commencement to this date, illustrated by diagrams. Also tables giving the address and capacity of every establishment in the State. Prepared by direction of the late convention of the trade held in Philadelphia. For sale by

LINDSAY & BLACKISTON, Philadelphia.
FIELDING LUCUS, Jr., Baltimore.
HENRY G. NICHOLS, 79 Water st., N. Y.
or at this office—price $1 00.

It will be sent by mail to any order enclosing the money, and post paid.

Ulster Iron.

THE ULSTER IRON WORKS, Saugerties, N. Y., continue in full operation. Orders for *round, square, flat, band, hoop and scroll iron*, will be received and promptly executed by

J. & L. TUCKERMAN,
69 West St., New York.

India-rubber for Railroad Cos.

RUBBER SPRINGS—*Bearing and Buffer—Fuller's Patent—Hose* from 1 to 12' diameter. Suction Hose. *Steam Packing* from 1-16 to 2 in thick. *Rubber and Gutta Percha Bands.* These articles are all warranted to give satisfaction, made under Tyer & Helm's patent, issued January, 1849. No lead used in the composition. Will stand much higher heat than that called "Goodyear's," and is in all respects better than any in use. Proprietors of rail roads do not be overcharged by pretenders.

HORACE H. DAY,
Warehouse 23 Courtlandt street
New York, May 21, 1849.

Railroad Iron.

2000 TONS T RAILS, of desirable pattern, arrived, and to arrive, for sale by

RAYMOND & FULLERTON,
6t21 45 Cliff st.

Railroad Iron.

THE MOUNT SAVAGE IRON WORKS, Alleghany county, Maryland, having recently passed into the hands of new proprietors, are now prepared, with increased facilities, to execute orders for any of the various patterns of Railroad Iron. Communications addressed to either of the subscribers will have prompt attention.

J. F. WINSLOW, *President*
Troy, N.Y.
ERASTUS CORNING, Albany
WARREN DELANO, Jr., N.Y
JOHN M. FORBES, Boston.
ENOCH PRATT, Baltimore, Md

November 6, 1848.

Railroad Iron.

THE SUBSCRIBERS ARE PREPARED TO take orders for Railroad Iron to be made at their Phœnix Iron Works, situated on the Schuylkill River, near this city, and at their Safe Harbor Iron Works, situated in Lancaster County, on the Susquehannah river; which two establishments are now turning out upwards of 1800 tons of finished rails per month.

Companies desirous of contracting will be promptly supplied with rails of any required pattern, and of the very best quality.

REEVES, BUCK & CO.
45 North Water St. Philadelphia.

March 15, 1849.

LAP—WELDED WROUGHT IRON TUBES

FOR

TUBULAR BOILERS,

FROM ONE AND A QUARTER TO SEVEN INCHES IN DIAMETER.

THE ONLY Tubes of the same quality and manufacture as those so extensively used in England Scotland, France and Germany, for Locomotive, Marine and other Steam Engine Boilers.

THOMAS PROSSER & SON, Patentees,
28 Platt street, New York.

AMERICAN PIG IRON.

"POUGHKEEPSIE" brand, Dutchess Co., N.Y.
"GLENDON" brand, Lehigh county, Pa.

Orders for the above two well known brands will be received, and promptly executed, by

J. & L. TUCKERMAN,
69 West St., New York.

American Cast Steel.

THE ADIRONDAC STEEL MANUFACTURING CO. is now producing, from American iron, at their works at Jersey City, N.J., Cast Steel of extraordinary quality, and is prepared to supply orders for the same at prices below that of the imported article of like quality. Consumers will find it to their interest to give this a trial. Orders for all sizes of hammered cast steel, directed as above, will meet with prompt attention.

May 28, 1849.

PATENT HAMMERED RAILROAD, SHIP & BOAT SPIKES.—The Albany Iron Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for rail roads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscribers at the works will be promptly executed.

JOHN F. WINSLOW, *Agent.*
Albany Iron and Nail Works, Troy, N. Y.

The above Spikes may be had at factory prices, of Erastus Corning & Co Albany; Merritt, & Co., New York; E. Pratt & Brother, Baltimore, Md.

Stickney & Beatty,

DEALERS IN IRON AND IRON MANUFACTURERS.

AGENTS for the Baltimore City Rolling Mill (Works of Messrs. Ellicott) also agents for the sale of the Laurel, Locust Grove and Gunpowder (Balt.) Forge Pig Irons; Hupp's Cold Blast Columbia Wheel Iron, Fort and anti-Eatam Pig Irons. Caledonia, Columbia and Capon Cold Blast Boiler Blooms, warranted; Wm. Jessop & Son's Steel; Old Colony and anti-Eatam Nails; Bar Iron, Boiler Plates, Hoop, Sheet, Oval, Half Oval, Horse Shoe and other Iron.

Exchange Place, Baltimore.

Railroad Iron.

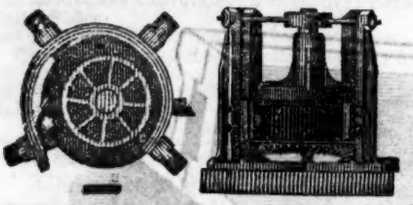
2000 Tons, weighing 58 pounds per lineal yard, of the most approved pattern of T rails, in store and to arrive, for sale by

COLLINS, VOSE & CO.,
74 South St.

New York, June 1, 1850.

MACHINERY.

Henry Burden's Patent Revolving Shingling Machine.



THE Subscriber having recently purchased the right of this machine for the United States, now offers to make transfers of the right to run said machine, or sell to those who may be desirous to purchase the right for one or more of the States.

This machine is now in successful operation in ten or twelve iron works in and about the vicinity of Pittsburgh, also at Phœnixville and Reading, Pa., Covington Iron Works, Md., Troy Rolling Mills, and Troy Iron and Nail Factory, Troy, N. Y., where it has given universal satisfaction.

Its advantages over the ordinary Forge Hammer are numerous: considerable saving in first cost; saving in power; the entire saving of shingler's, or hammerman's wages, as no attendance whatever is necessary, it being entirely self-acting; saving in time from the quantity of work done, as one machine is capable of working the iron from sixty puddling furnaces; saving of waste, as nothing but the scoria is thrown off, and that most effectually; saving of staffs, as none are used or required. The time required to furnish a bloom being only about six seconds, the scoria has no time to set, consequently is got rid of much easier than when allowed to congeal as under the hammer. The iron being discharged from the machine so hot, rolls better and is much easier on the rollers and machinery. The bars roll sounder, and are much better finished. The subscriber feels confident that persons who will examine for themselves the machinery in operation, will find it possesses more advantages than have been enumerated. For further particulars address the subscriber at Troy, N. Y.

P. A. BURDEN.

Railroad Spikes and Wrought Iron Fastenings.

THE TROY IRON AND NAIL FACTORY, exclusive owner of all Henry Burden's Patented Machinery *for making Spikes*, have facilities for manufacturing large quantities upon short notice, and of a quality unsurpassed.

Wrought Iron Chairs, Clamps, Keys and Bolts for Railroad fastenings, also made to order. A full assortment of Ship and Boat Spikes always on hand.

All orders addressed to the Agent at the Factory will receive immediate attention.

P. A. BURDEN, *Agent*,
Troy Iron and Nail Factory, Troy, N. Y.

CHILLED RAILROAD WHEELS.—THE UNdersigned are now prepared to manufacture their Improved Corrugated Car Wheels, or Wheels with any form of spokes or discs, by a new process which prevents all strain on the metal, such as is produced in all other chilled wheels, by the manner of casting and cooling. By this new method of manufacture, the hubs of all kinds of wheels may be made whole—that is, without dividing them into sections—thus rendering the expense of banding unnecessary; and the wheels subjected to this process will be much stronger than those of the same size and weight, when made in the ordinary way.

A. WHITNEY & SON,
Willow St., below 13th,
Philadelphia, Pa.

Brown's Old Established SCALE WARE HOUSE,

NO. 234 WATER ST., NEW YORK.

THE Subscriber, Practical Manufacturer of Scales of every description, respectfully asks the attention of Railroad Companies to his Improved Wrought Iron Railroad Track and Depot Scales which for strength, durability, accuracy, convenience in weighing, and beauty of workmanship, are not surpassed by any others in this country.

He is aware that this is rather a bold assertion for him to make, yet he can say with confidence that they have but to be tried to give them precedence over all others.

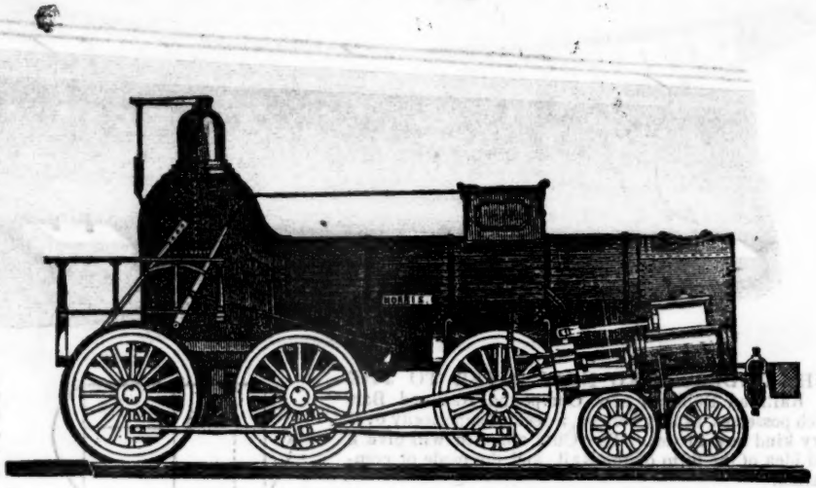
J. L. BROWN.

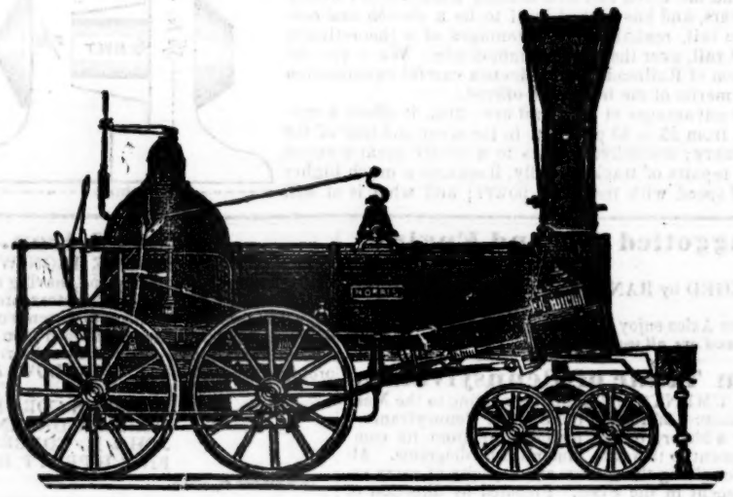
☞ Bank Scales made to order, and all Scales of his make Warranted in every particular.

Reference given if required

NORRIS' LOCOMOTIVE WORKS.

BUSHHILL, SCHUYLKILL SIXTH-ST., PHILADELPHIA,





THE UNDERSIGNED Manufacture to order Locomotive Steam Engines of any plan or size.

Their shops being enlarged, and their arrangements considerably extended to facilitate the speedy execution of work in this branch, they can offer to Railway Companies unusual advantages for prompt delivery of Machinery of superior workmanship and finish.

Connected with the Locomotive business, they are also prepared to furnish, at short notice, Chilled Wheels for Cars of superior quality.

Wrought Iron Tyres made of any required size—the exact diameter of the Wheel Centre being given, the Tires are made to fit on same without the necessity of turning out inside.

Iron and Brass castings, Axles, etc., fitted up complete with Trucks or otherwise.

NORRIS, BROTHERS

PATENT MACHINE MADE HORSE-SHOES.

The Troy Iron and Nail Factory have always on hand a general assortment of Horse Shoes, made from Refined American Iron.

Four sizes being made, it will be well for those ordering to remember that the size of the shoe increases as the numbers—No. 1 being the smallest.

P. A. BURDEN, *Agent*,
Troy Iron and Nail Factory, Troy, N. Y.

Etna Safety Fuse.

THIS superior article for igniting the charge in wet or dry blasting, made with DUPONT'S best powder, is kept for sale at the office and depot of

REYNOLDS & BROTHER,

☞ *Sole Manufacturers,* ☜

No. 85 Liberty St.
NEW YORK.

And in the principal cities and towns in the U. States.

☞ The Premium of the AMERICAN INSTITUTE was awarded to the *Etna Safety Fuse* at the late Fair held in this city.

November 3, 1849. 1y

UNION WORKS,

North street, opposite the Railroad Depot,
BALTIMORE.

Poole & Hunt,

Manufacturers of Steam Engines and Mill Gearing, Machinists' Tools, and all kinds of heavy and light Machinery.

Also put up *Arrangements of Wrought Iron Pipes* for heating buildings and conveying steam or water.

Castings of every kind furnished at short notice.

Every exertion will be made to insure the satisfaction of customers.

Patent Machine Picket Fence

SIX DIFFERENT STYLES of this fence are now made by patent machinery; and is by far the most economical fence for *Railroads, Farms, Yards*, etc., ever yet offered to the public, costing only from 4 to 30 cents per foot, according to pattern; and is so put up as to be shipped at a trifling expense. Full particulars will be furnished, by addressing the subscriber, to whom all orders should be sent.

N. STRATTON, Troy, N.Y.